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ABSTRACT

The document is the first of three volumes (see also EC 032 851 and EC 032 852) of State Analysis Reports resulting from Phase III of the Study of the Need for Educational Manpower for Handicapped Children and Youth, which involved a validation study and state surveys related to the Manpower Requirements Projection Model (MRPM). Included in the volume are individual reports on special education information flow in states in alphabetical order from Alabama through Kansas. Recommendations made for each state provide guidance for developing an information flow that will enable that state to utilize the MRPM and improve the availability of information for other special education management functions. (See EC 032 847-EC 032 849 and EC 032 851-EC 032 852 for related information.) (KW)

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SILVER SPRING, MARYLAND

STUDY OF THE NEED FOR EDUCATIONAL MANPOWER FOR HANDICAPPED CHILDREN AND YOUTH— PHASE III REPORT

PART D—STATE ANALYSIS REPORTS

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PREFACE

The "Study of the Need for Educational Manpower for Handicapped Children and Youth—Phase III Report" has been organized so that appropriate parts of it may be conveniently distributed to those most immediately concerned with the content of each part. The general content of each part is as follows:

- Part A, Phase III Final Report, contains the overall report on the Manpower Requirements Projection Model (MRPM) validation efforts and the activities, findings, and conclusions of the state survey. Its appendices also contain implementation cost estimates and summaries of the enrollment and employment data collected during the state survey.
- Part B, Special Education Staff Users' Guide, contains both the general and the detailed guidance necessary for non-technical oriented personnel for understanding and implementation of the MRPM.
- Part C, Manpower Requirements Projection Model—Technical Documentation of the Computer Program, which is written for the technically oriented user of the MRPM, provides the technical details necessary for understanding the model formulations and computer programs.
- Part D, State Analysis Reports, includes individual reports on each state's special education information flow.

Parts B and C are bound together in one volume; Part D is divided into three volumes for ease in handling.

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I. INTRODUCTION

1.1 Sponsored by the Bureau of Education for the Handicapped (BEH), Operations Research, Inc. (ORI), has developed a mathematical model that provides the framework for systematic consideration and evaluation of major elements contributing to the determination of special education manpower needs. The model has been designed for voluntary application by state special education agencies and, when fully implemented, will assist each state in the systematic prediction of its own special education manpower needs, based upon individual state education characteristics. The model will simulate present and future manpower needs under varying assumptions regarding changes in personnel/pupil contact ratios, the educational program mixes, the child participation rate, or any combination of these variables.

1.2 Following development of the Manpower Requirements Projection Model (MRPM), a pilot survey was conducted in five states to assess the availability, at the state special education agency level, of the data elements needed to utilize the model. As a result of the pilot survey it was discerned that much of the data was not readily available from state level sources, even though the data may exist at that level. Their nonavailability resulted from the untabulated format and lack of capability to process these data to form inputs required by the model. Furthermore, some of the missing data was available at local education levels, but the means or need to transmit the data was not in existence. Finally, there were required data elements which were currently not being generated by any level of special education agency.

1.3 It was further concluded from the pilot survey results that there was an apparent need by state agencies for assistance in developing an integrated information flow to supply the missing data.

1.4 In proceeding with the implementation of the MRPM, BEH determined to conduct, through ORI as the contractor, an assessment of the current capability

for model implementation, on a state-by-state basis. A visit was made to each of the 50 state special education agencies in order to familiarize the states with the objectives of the program and to conduct a survey of current state information flow procedures. The purpose of the survey was to review and analyze the capability and potential for utilization of this model by the state agencies responsible for the education of handicapped children, and to specify a feasible information flow and procedures to meet initial and continuing data needs required to utilize the model. The survey included an analysis of

a. The capability of existing information flow processes to provide the necessary model input data

b. The existing automatic data processing capability to process the model program

c. The special education staff capability and desire to utilize the model.

1.5 The survey visits were conducted during the July-November 1969 time period. At the conclusion of the visits, individual state analysis reports were prepared and a draft was submitted to the state director of special education (or his equivalent), with a copy also sent to the state's chief education officer, requesting comments on the report content. At the date of publication of this report, 37 states have responded to this request.

II. SURVEY FINDINGS

2.1 In surveying the 50 states a great variety was found in those administrative facets of handicapped child education which affect the flow and utilization of special education information. The variables that were found to affect the model application potential are listed below and are discussed individually in subsequent paragraphs.

- Distribution of responsibility for the education of handicapped children
- Types of state special education organizations
- Type and detail level of the data available at the state special education agencies
- Need for additional special education data
- Attitude toward model application
- Legislative, geographic and fiscal factors
- Existing information flow characteristics
- Availability of model data elements
- Availability of resources for model application.

DISTRIBUTION OF RESPONSIBILITY FOR EDUCATION OF HANDICAPPED CHILDREN

2.2 Responsibility for the education of handicapped children almost never belongs to one state agency alone. Other state agencies besides the education departments have a portion of the responsibility. Most frequently involved are the departments of public health, mental health, and social welfare, and autonomous state institutions. Guidelines generally exist for the assignment of a child to any one of the services, but they are not always well-defined.

The reasons for the dispersion of responsibility include:

a. Jurisdictional assignments which might occur when services for a handicapping condition are provided by several sources (e.g., state institutions, local public schools, or other state agencies) — For instance, a blind child residing in a district providing no public school special education program for that handicap may be assigned to a state institution for the blind, whereas a child residing in a district where such a public school program is available may not be eligible for institutional services. On the other hand, a vocational rehabilitation department may have programs for training educable mentally retarded children for a vocation in a district where there are also public school special education programs for the same age range. The point at which the responsibility passes from one agency to another may be nebulous.

b. Functional assignments established by the organization of state services — This type of responsibility dispersion may arise, for example, in an area where a mental health agency exists and responsibility for the education of children with certain forms of mental handicap is included in its functional charter. In some instances a state agency was established to service a particular handicapping condition recognized at the time of its charter. Since its establishment, new services have become available, but responsibility for them has been assigned to a different agency. Because of historical involvement in state legislative and organizational structures, the original agency continues its function, and dispersion of responsibility is maintained. This kind of situation most frequently occurs in the area of education of the mentally retarded.

c. Specialization capabilities in a particular handicap area, such as public institutions for the blind or the deaf.

d. The existence of private educational services — While private organizations have no legislated responsibilities, they are an additional source of special education for handicapped children. Some states provide tuition payment and rely upon specialized private facilities to serve certain types of handicapped children. In some cases, private institutions are a means of circumventing legislative fiscal constraints.

2.3 There are additional variations in the reasons for the fractionalization of educational services to handicapped children, but, for the purposes of this study, the reasons are only important because of their effect on the special education information flow and the use of the Manpower Requirements Projection Model. Each additional agency, autonomous institution, and private facility adds to the complexity of establishing data collection procedures and data consistency. Another factor which arises indirectly from this fractionalization is that in many states the personnel qualifications for teaching handicapped children vary from agency to agency, state school to state school, and of course, from one private school to another.

Types of State Special Education Organizations

2.4 The organizational hierarchy and function of the individual state special education agencies has an important bearing on the information flow. The state special education agency almost always serves the state's public school system and has additional responsibilities in other areas (e.g., state schools and institutions, private facilities), depending upon individual state legislation. Organizationally, the agency is contained within the state department of education (or public instruction, etc.), but its level within the state department varies considerably. In some states, the director of special education is directly responsible to the superintendent of education (or his equivalent) and in other states he may be several levels removed.

2.5 The special education intra-agency organizations also exhibit a variety of structures. In some states, particularly where the staff is very small, each staff member, although primarily responsible for a specific portion of the whole job content, can "fill in" to perform other special education duties. In such cases, communications and information flow within the agency are good. The other extreme involves complex agencies where there is a specialist for each handicap condition and coordination among staff members, even to the request of data from the locals, is minimal or nonexistent. This causes variations in the level of data detail available at the state agency, to say nothing of the deluge of information requests that can be imposed upon the local school districts.

2.6 The functions of the special education agency also vary widely from state to state. The range of legislated responsibilities runs the length of the spectrum from practically no responsibility to rather complete control of the state's education effort for handicapped children. Agencies may

a. Oversee distribution of funds, exercising only enough control to obtain information upon which to base fund disbursements.

b. Provide guidance to local education agencies for the formulation and development of special education programs — This entails more involvement at the local level and a better knowledge of local procedures, definitions, and facilities.

c. Enforce state special education regulations pertaining to diagnosis and establishment of classes, approval of curricular content, teacher approval, individual child applicant approval — This may also include provision for coordination with other state agencies and private facilities involved in the education of the handicapped.

2.7 Insofar as the model is concerned, the organizational structure is important only in that it reflects on the ability of the special education staff to influence the data from the public schools and other state agencies and private facilities.

2.8 The functions for which the special education agency is responsible correlate rather well with the information that is made available to them. The study findings indicated that the more involvement the state staff has with the local agencies, the better is their "leverage" for requesting, and obtaining data.

Level of Data Available at State Special Education Agencies

2.9 One of the first tasks performed in the analysis of each state's information flow system was to determine the level of detail available at the state level for the data elements required by the model. During the course of the survey, analysis revealed a variety of levels, both within and among special education agencies. Frequently, the functional responsibility of the special education agency was found to dictate the level of data available, since little more than the data required by the agency is collected or aggregated.

2.10 The following descriptions of types of information collected indicate the various levels of available data:

a. Sufficient to support financial disbursement only — This is generally very aggregated local education data which reflects the basis used for fund allocation, for example, the total number of children served, by handicapping condition.

b. Sufficient only to satisfy the requirements to qualify for Federal assistance such as the Title VI-A Plan — In this respect, the Federal accounting requirements become a prime motivator for developing information flow.

c. Sufficient to satisfy the specific needs of only a portion of the special education programs — With decentralized intradepartmental collection procedures similar data, applicable to all handicaps, is not collected; detailed data becomes available only for the specific programs polled.

d. Sufficient for a specific purpose, possibly to reinforce some request to the legislature — This kind of data, contained in non-routine reports (special one-time surveys), is allowed to become obsolete until there is need to initiate another special survey. Occasionally these non-routine reports were found to contain the level of detail required for model application, but the data was either obsolete or the mechanism for continued collection of the data was nonexistent.

e. Sufficient for projections, based upon a state's individual model — Projection data was found to be available in varying degrees of accuracy for numerous different subjects including child populations, special handicap conditions, special education manpower requirements, pupil enrollments, etc. Although the rationale for many of these projections does not provide for all of the elements that would affect the projections, the fact that some states are making an effort to anticipate their problems and plan for their solution is encouraging, since it is likely to increase the desire and need for the Manpower Requirements Projection Model.

f. Sufficient to provide statistics for annual reports detailing the accomplishments of special education for the previous year — Many of the state special education agencies have elements of information flowing to them that describe the status of services. In some states, the level of detail approximates the requirements of the MRPM, and with modification, could be the basis for the necessary information flow.

2.11 In summary, it was found that although the current level of data detail at the state level could not support the model, in many cases only minor modifications to an already existing information flow would be required to provide data sufficient for initial model implementation.

Need for Additional Special Education Data

2.12 In many of the states visited, it was found that the information available to the special education staff was inadequate for their requirements, even without consideration of the MRPM. In almost every state it was readily admitted by the directors of special education that there are elements of data which would be very

useful to them, but which for various reasons they do not now collect. The reasons for this information shortage include:

a. Insufficient funds

b. No authority to collect data from LEA or other agencies.

c. Lack of staff for processing and analysis purposes

d. Need for guidance in setting up data collection procedures.

2.13 Additional data is needed by many of the state special education agencies to document services provided, to analyze the status and effectiveness of services, and to plan for both the existing level of activity and model application. The requirement for data collection for model application purposes could provide the impetus to initiate improved data collection procedures in many states.

Attitude Toward Model Application

2.14 All of the 50 state special education agencies cooperated completely with the analysts conducting the survey. After the analyst explained and discussed the model application objectives, data element requirements, and the existing information flow with the special education director (and in many cases, with officials of other affected agencies), the attitude of the state personnel toward the Manpower Requirements Projection Model was evaluated.

2.15 In most cases, the directors were primarily intrigued by the potential for additional data which might become available to them. They did not always agree that all of the specified data elements were necessary or applicable to their particular situation, but they did feel that the basic elements would, for the most part, be useful for operational analysis. Where the full concept of the model potential was well understood (as was generally the case), a definite interest in utilization of the model was exhibited. However, the actual availability of the model and suggestions as to how it may be implemented will help the directors to evaluate model capabilities and decide whether to use them.

2.16 In a few instances, the current gap between manpower supply and requirements is so great that the need for projecting requirements is too distant a problem. In such cases, the directors considered model application to be an academic exercise. When this condition obviously existed the survey analyst concentrated primarily on developing an interest in creating an information flow to provide the necessary data for the future, when manpower requirements projection would prove to be a practical planning aid.

Legislative, Geographic, and Fiscal Factors

2.17 Among the set of variables that affect model application is a group of conditions that reflect each state's unique characteristics. The effect of each of these conditions on the complexity of the information flow, and hence on the model application, varies from state to state.

2.18 Handicap Definitions. Each state applies its own definitions to the handicapping conditions. These definitions are the basis for diganostic classification and determine the type of service the child will receive. Even the definitions of the basic handicap groups may vary from state to state. In some states, the deaf and hard of hearing are grouped in the "hearing impaired" category; while in other states the hard of hearing may be included in a "speech and hearing" category (which excludes the deaf). The definitions are statistically important because they define which children are served by a specific type of special education program; this in turn affects the special education personnel requirements.

2.19 Handicapped Areas Served. This set of variable refers to the handicapping conditions served and the educational programs available to serve them. A child with a handicapping condition may receive his education in a state residential school, a public school special education class, a special day school, a resource room, or by an itinerant teaching program, depending upon the special education policies of the state. Which programs a state utilizes may affect the manpower requirements because teacher/pupil contact ratios may vary from program to program by handicapping conditions served.

2.20 Fiscal Attitude Toward Special Education. The state agencies are in competition with each other for the allocation of the available state funds. It is not unusual to have a state's special education budget controlled not by the services needed but by some fund distribution formula that gives special education its "piece of the pie." This of course reflects on manpower requirements projections because it introduces another dimension into the overall problem of satisfying these requirements. Here, however, good information and projections can be most useful by presenting factual evidence to support service requirement claims.

2.21 Mandatory Legislation. This type of legislation serves at cross purposes. Its objective is to ensure education services to the handicapped by specifying that when a community has a certain number of children requiring special education, it must arrange to provide it. This intent is good; however, too frequently the funds are not available at the local level to provide the needed services and the local agencies avoid identifying handicapped children, to circumvent the legislation. This slows the diagnostic process and seriously distorts the true measure of annual incidence. In states where mandatory legislation exists without the funds to serve each identified child, some consideration should be given to permit diagnosis and identification without forcing the community into a financial commitment it cannot meet. In addition to distorting incidence, under mandatory legislation it is difficult to get a true measure of the handicapped child population, and thus, of special education requirements of a state.

2.22 Local vs State Sponsorship. This characteristic becomes important when local sponsorship of services deprives the state of any flow of information pertaining to special education efforts. In some states, special education programs must receive the approval of the state agency regardless of the source

of sponsorship, while other states pride themselves on the local autonomy of their special education programs. The net effect of this characteristic is really dependent upon the communication that is permitted to exist between local and state levels.

2.23 Population Density/Dispersion. In some states there are areas so sparsely populated, and the geographic distances between even small population centers are so great, that regular education service poses a problem, to say nothing of special education. In such areas handicapped children either receive no services or the services of a regular education teacher who, if the child is fortunate, will have had at least some special education training or guidance. These problems must be considered when making manpower projections. In the first place, normal teacher/pupil contact ratios cannot apply because of the low possibility of finding enough children with the same handicap condition for even a minimum sized class within a feasible transportation range. In addition, there is difficulty in attracting qualified personnel to such remote areas.

2.24 Manpower Availability. The availability of qualified special education personnel is affected by several considerations, not the least of which is money. One state may have little difficulty in obtaining qualified teachers because of a good pay scale, while a neighboring state offering lower pay "goes abegging." An understaffed state may have good university training programs but lose its potential manpower because of salary limitations. The wide variation in teacher training requirements and certification is another factor affecting manpower acquisition. Other factors such as the special education "atmosphere" in a state or locality, and the previously mentioned geographic dispersion problem have an influence upon special education manpower.

Existing Information Flow Characteristics

2.25 The 50-state survey revealed a variety of characteristics that are found in state information systems. The combination of data elements into a system was often not the result of a preconceived information system design, but was, rather, the result of building on information already available, or the cumulative result of special information requirements.

2.26 Type of System. Obviously, the information available at a state special education agency will either be derived specifically for special education use or extracted from a system designed for other users. The survey indicated that if the information is of the former type, its level of detail is likely to approximate that required by the MRPM. However, data extracted from a system used primarily for other purposes (e.g., a regular education information system) is generally too highly aggregated for model use. This is not meant to imply that special education information could not be compatible with another system or, for that matter, be a subsystem of another system. It does mean, however, that the system from which special education information is successfully extracted must provide for those data elements unique to special education requirements.

2.27 A pupil accounting system (PAS) that is designed for the state's overall education system can be fully responsive to special education needs if it also provides the additional special education data elements. A data summary system (wherein detailed data is collected at the LEA, but the LEA summarizes the data before transmittal to state level) can also satisfy model requirements if summarization is by the required categories.

2.28 Of course, the condition was also found wherein the available data was not derived by any systematic method, but was assembled through unofficial informal channels. This type of data was generally incomplete in that all sources were not tapped and the methodology for repeating the data collection process was not established.

2.29 In summary, it was found that a small number of states (five or six) had, or were in the process of developing, information systems that were sophisticated enough to integrate both general education and special education information requirements. By far, the greatest majority of existing special education information systems are the result of the special education agency striving to collect that data which it needs to operate, and in many cases the results are minimal. These systems are characterized by a lack of cohesiveness in the data collection process and in data reduction. Often vital elements are missing which are required to make the existing data meaningful. There are a small number of states that essentially have no special education data other than that needed for financial allocations.

2.30 Basic Flow Patterns. The reporting flow patterns vary according to policies existing in each state. Possible general flow paths are:

a. Classroom to LEA to state level, with summarization at state level

b. Classroom to state level, with summarization at state level

c. Classroom to LEA, with summarization at the LEA and transmittal of the summaries to state level.

2.31 The initial source of enrollment data elements (enrollments, attritions, transfers) is generally classroom (or itinerant) teacher reports. In most states enrollment data is first transmitted to the LEA; then a copy is either forwarded to the state level or the LEA aggregates the data from a number of classrooms and forwards it to the state level. In some cases, however, the flow of information is directly from the teacher to the state education agency (SEA).

2.32 Data on children identified as handicapped but not enrolled in a program, is usually reported by the LEA when it is available. In some states this data already exists in detailed form at state level because child application approval is at state level.

2.33 Personnel data, excluding initial certification, is frequently submitted, by the LEA to the SEA, in special education program or class approval plans. In many instances, however, this basic source of information for determining active teacher personnel is not utilized, with the result that a roster of active personnel is not available at the SEA.

2.34 Very rarely is there a formal flow of special education data between state level agencies or between private schools and the state special education agency. One-time flow of data between these sources usually requires a special request (formal or informal), which must be renewed each time the data is needed.

2.35 Forms Variations. As might be expected, the variety of forms encountered was all but endless. Variety among states is immaterial, but the variations in reporting formats that occur at all levels within many states certainly contribute to the data preparation work load, to say nothing of negative effect on data consistency. Many states had unique forms for each handicap condition and also employed different reporting procedures for each handicap. The necessity for unique information about each handicapping condition is obvious, but much of the data is also standard. Recognizing this fact, some states have organized their handicap reporting forms so that the portion containing standard data is arranged in the same format on all forms.

2.36 It was obvious to the survey staff that the reporting forms used in many states were designed by people inexperienced in the requirements of good forms format. Awkward data arrangements, insufficient space for data insertion, misleading column titles, confusing directions, and repetitious data were some of the more common problems. Rarely had any consideration been given to the ease of data conversion directly from the forms into automated data processing systems. In some states, each handicap specialist is permitted to design and circulate for completion those forms which he deems necessary to the collection of data for his area of specialization. Ironically, much of the data collected by some states is never aggregated or even subjected to individual analysis.

2.37 Degree of Automation. Many of the state education agencies are becoming aware of the advantages of using automated data processing techniques in their general education programs. However, the use of automated data processing procedures is frequently not considered by special education agencies. The need for these procedures is often not even recognized, for the agencies are too accustomed to starving for information and making do with the little data they are able to manually assemble. On several occasions the survey analyst, during his visit to the state, established the first communication between the special education agency and the data processing agency charged with the responsibility for providing data processing support.

2.38 There is little doubt that the states already utilizing automated processing will most quickly apply the MRPM. Certain states, because of their small populations and paucity of special education programs will be able to manually aggregate data for some time to come. Unfortunately, there may be a correlation between a lack of need for efficient data processing procedures and inadequate special education services.

2.39 Time Period Variations. The reporting cycles that are in effect in a state are usually linked to the need for providing budgetary data. In most cases this is consistent with the operational data needs of the educational system within the state. Unfortunately, there are occasions when the processing of non-budgetary data is so delayed that it is obsolete before it becomes available.

2.40 The establishment of a common time frame for all state to report the findings of the MRPM to BEH is recommended, but the fact that findings may be based upon different time periods must be considered during any analysis of combined results. Changes in the reporting cycle within a state may be constrained by many other governmental procedures that are little related to special education.

Availability of MRPM Data Elements

2.41 Full application of the Manpower Requirements Projection Model requires that several categories of data elements by available. These include

a. Children identified as needing special education

b. Unidentified handicapped child population (estimate)

c. Mobility of children into, within, and out of the handicapped child population

d. Special education simulation variables

e. General child population projections

f. Special education personnel supply (optional).

The current availability of the data within these categories, and the potential for data development, are discussed in the following paragraphs. A general comment that applies to all elements is that seldom were data pertaining to the total of handicapped child services available in one set of records or in one data bank. Usually, each agency, autonomous state school, and private school maintained its own records for the children within its jurisdiction.

2.42 Children Identified As Needing Special Education. This category is divided into two areas — enrolled, and identified and waiting to be enrolled. "Enrolled" refers to the handicapped children who are currently receiving educational services in a recognized special education program. "Identified and waiting to be enrolled" refers to the children who have been diagnosed as needing special educational services, but for some reason are not yet enrolled; this group constitutes the special education waiting list.

2.43 The enrolled children are almost always accounted for, in one way or another, at state level. However, to be useable by the MRPM, it is necessary that enrollment data be broken down by age, handicapping condition, and education program. Enrollment data by handicap group was usually available, but further delineation, when it did exist, was generally by education level (elementary, primary, intermediate, secondary, high school, etc.) and not by

individual year of age. This, of course, is not satisfactory for model application because the age mix within the education level of the handicapping condition (target group) is not known. Many states were able to provide totals by handicapping condition and educational program, however, educational programs were not always well-defined. Residential schools and itinerant programs were the easily identifiable extremes but, aside from grouping the children into "special classes in regular schools," other program areas were not too well established for reporting purposes.

2.44 Records pertaining to those children identified and waiting to be enrolled were scarce at state level and, when available, were usually uncompiled and incomplete. Some states are making provision for collecting the waiting list data by including it in the information items requested from the LEA.

2.45 The establishment of meaningful waiting list data is complicated by several serious problems, one or more of which occur in 80 percent of the states. One of the major problems, and of course a very basic one, is the inability of states to provide the diagnostic services needed to positively identify the conditions of children referred, or in the absence of referral, to seek out and identify the children requiring services. The shortage of funds, qualified diagnostic personnel, and diagnostic facilities prohibit many states from servicing more than those children who have been referred as potentially needing special education services. In fact, it is not unusual to limit diagnosis to the extent necessary to fill existing or near future special education openings.

2.46 Another problem complicating the establishment of total waiting list data is the multiplicity of sources for both referrals and diagnoses, and the level of authority to which the findings are reported. Referrals can be made by parents, doctors, teachers, school nurses, welfare and legal agencies, etc. They can be made to school superintendents, to state agencies such as special education, health, mental health, welfare, and to public and private clinics. Some states have established a formal procedure to be followed in the diagnostic process and in such cases it should be possible to assemble data on those children who have been diagnosed and have not received a special education assignment. (It cannot be assumed, however, that such a list is representative of all children requiring services unless diagnosis is not constrained by funds, personnel, or policy). In states where the reporting of referrals and diagnosis is less formal, or where the operations of the LEA are mostly autonomous (resulting in state-wide inconsistency of policy) the potential for collecting useable waiting list data is slight.

2.47 Another problem that affects the potential for obtaining waiting list data has been mentioned previously in connection with the variables affecting special education program services. Mandatory legislation — that policy which places the responsibility on the LEA to provide each identified child with special education services — frequently serves as a restraint to the referral and diagnosis of potentially handicapped children. Referrals are not made, nor are diagnoses

performed unless personnel, facilities, and funds are available. Thus, in a community that may not be able to serve any additional "identified children," no waiting list exists because no children beyond those who can be served have been identified.

2.48 The major causes for the lack of "identified but unserved" data have been discussed. For these reasons, such statistics are not often used as a basis for planning for additional special education requirements.

2.49 Unidentified Handicapped Child Population. In the absence of comprehensive diagnostic capability, most states use prevalence rates to estimate the number of children in each category of each handicapping condition. Although a few states use rates based on special studies, most states use the national prevalence rates, or modifications of the national rates. These constitute the best available tool for estimating the handicapped child population, although officials frequently feel that some of the rates in the set are not accurate for their particular state.

2.50 Handicap census is another technique employed by some states to estimate their unidentified handicap population. Such surveys generally utilize a questionnaire to be completed by personnel not skilled in diagnostic techniques. Regular classroom teachers or other participating personnel are asked to categorize classroom children and/or to visit homes to ask parents about preschool age children who may be handicapped. One problem is that to determine the validity rate of the census, a correlation must be made between these "unskilled diagnoses" or referrals and an actual diagnosis. In addition, too frequently the census is conducted on a one-time or sporadic basis and validation through the accumulation of follow-up statistics becomes difficult.

2.51 A few states are pioneering in a census method designed to greatly reduce unqualified diagnostic classification by providing the "census taker" with a series of symptoms (observable indications) which can be applied to a child's behavior without the need for diagnostic categorization by non-professional personnel. The symptoms are then reviewed by qualified personnel who categorize the child. The objective is to provide greater quantities of more accurately based referrals.

2.52 Mobility of Special Education Population. The size of the identified handicapped child population in a state is altered by the addition of new children, including new enrollees and incoming interstate transfers, and by attritions (graduations, dropouts, outgoing interstate transfers, deaths, etc.) which deduct from the total population. The availability of data pertaining to these mobility factors was almost always not satisfactory for MRPM purposes.

2.53 Data on new enrollees and incoming interstate transfers was usually not available at the same level of detail as were enrollment data.

2.54 Records on newly diagnosed children, where diagnosis was tantamount to enrollment (diagnosis only when capacity was available), were usually available by age and handicapping condition at state level if enrollment data were reported on each individual student. The date of enrollment is frequently a part of the reporting record. This information is almost certainly known at each LEA; however, where the newly diagnosed children are not immediately enrolled, the availability of the information is on a par with the waiting list data previously discussed.

2.55 Attrition data by handicapping condition does appear in many state special education records. However, a breakdown by cause of attrition appears less frequently, and attrition by single year of age was almost never available. Most states recognized the utility of such data and, as a result, this will be one of the easier data elements for which to develop collection procedures. Only a minimal modification to existing systems will be required.

2.56 Special Education Simulation Variables. To fully utilize the simulative capabilities of the model, certain types of background data are required. Educational program mix trends are one of the data elements useful in the projection of manpower requirements because their variation can affect manpower requirements. Many states had enrollment data by handicapping condition and education program (residential, special day school, special class in a regular school, itinerant, etc.), but, as previously discussed, the program breakdown frequently included only three divisions — residential, itinerant, and the area in between these two. The state survey indicated that historical records will usually contain sufficient data to enable special education consultants or staff to plot an interpretation of trends in program mix.

2.57 Other simulative data elements include personnel types and personnel/pupil contact ratios. The model requires that these categories of data be available by target group (subsets of the handicapped population having major distinguishable special education personnel requirements). Almost all states required that direct contact personnel have some special qualifications to serve handicapped children and most of these states required that the qualifications be unique to the handicap area in which the personnel were to serve. Thus, the identification of a teacher of the blind, a teacher of the mentally retarded, a speech and hearing therapist, etc. was generally possible through available data. However, few states required a specific qualification by education level (elementary, secondary, primary, intermediate, etc.).

2.58 Personnel/pupil contact ratios for a state's public school system are almost always specified by state legislation, or department of education or special education agency directives. These ratios usually were found to vary according to the requirements of a handicap group, but, most frequently, there was no variation in the ratio within the handicap group because of education program (except for itinerant caseload ratios) or educational level. There were some

states that specified only one personnel/pupil contact ratio for all handicap conditions. Whatever the personnel/pupil contact ratio, it was always obtained easily insofar as the public school systems were concerned. In most instances, these ratios were not formally documented for state institutions or private schools. Each institution or private school usually had its own ratios which could vary radically according to the nature of services provided and the educational policies in effect.

2.59 Yearly Projections of General Child Population, By Age. Many states had population projections or statistics that could be utilized in the preparation of annual population projections by single year of age, for the period for which the projections were desired. The basis for the derivation of these projections included

- Historical records by grade level
- General population trend predictions
- Time increments (1970-1975-1980-etc.), by age blocks (0-5, 6-10, 11-15, etc.).

This information was not generally available as part of special education data, but was available from various state level agencies responsible for statistical analysis (financial offices, planning offices, etc.).

2.60 Special Education Personnel Supply. Although this data is not necessary to the projection of manpower requirements, it would be necessary if a state wished to determine the gap between current manpower supply and requirements. This type of information is frequently obtained from individual forms and compiled for distribution as a special education personnel directory. The basic data was usually found to be available within the state special education office, and although it was rarely summarized and totaled by area of specialization, summarization was not too difficult.

Availability of Data Processing Resources

2.61 The resources necessary for the implementation and application of the Manpower Requirements Projection Model include both manpower skills and data processing hardware capability. The availability and adequacy of both varied widely among the 50 states. Existing levels of sophistication in information systems and organizational interfaces between education and data processing groups also varied from one state to another.

2.62 Manpower. To implement the information flow necessary to support the MRPM, several different types of manpower capability are required to perform the necessary functions of system design, data source determination, form design, input data preparation, programming, output format design, coordination, and output analysis. Talent of this nature was rarely found within the capability of the existing special education staffs because these skills are not indigenous

to normal special education operations. In almost every state, however, there exists within the state government an organization which is theoretically responsible for providing special education with the type of technical support necessary to initiate and maintain an information flow. In practically all cases where such an organization does exist, it contains the type of personnel skills necessary to the implementation of an information flow and the application of the model. However, this organization may or may not be able to provide such services depending upon present work load, staff size, and priority of work. In many states, special education agencies receive few services as a direct result of their own requirements. (Frequently the services obtained are an offshoot of some other reporting requirement.) Generally, in those states where an information system responsive to special education needs did not exist, either the request for such services had never been made, the special education staff did not know how to formulate its data needs, or there was a lack of understanding or appreciation of what could be accomplished using such services. This is not too surprising since special education personnel are, by nature or profession, primarily "people-oriented" rather than "systems-oriented."

2.63 Some of the manpower skills required, such as systems coordination and data output analysis are very much a part of the capabilities that special education staffs should possess (and in most cases do possess). However, the unavailability of the necessary staff for additional data development efforts was characteristic of the understaffed status of many special education agencies.

2.64 In summary, the personnel required to initiate and maintain the information flow were usually available, although the personnel for application to the tasks necessary to accomplish the flow was very frequently in short supply.

2.65 Hardware. The computer hardware capacity that is required falls into two categories: capacity to process an information system, and capacity to process the Manpower Requirements Projection Model.

2.66 Most state education agencies theoretically had the hardware capability, or access to it through other agencies or universities, to process an information system. However, the special education agency's actual access was frequently limited because of lack of machine availability, often the result of the low priority that was assigned to special education processing needs. This actual limited access is evidenced by the fact that, at the time of the survey, approximately a third of the state special education agencies were utilizing automated data processing techniques in their own information flow. Since the survey visits, a few states have begun using an automated system for the first time.

2.67 The hardware capability requirements for the model generally exceed those of an information system primarily because of the need for approximately 24-thousand word storage capacity. Even so, sufficient computer capability to run the MRPM program was present, if not always available, in over 80 percent of the states. Only six or seven states did not have a FORTRAN compiler, required by the MRPM computer program.

SURVEY CONCLUSIONS

2.68 The summarized conclusions resulting from the analysis of all the individual state reports are contained in the following paragraphs. Not every conclusion applies to every state; rather, these conclusions present a broad overview of the status of special education information systems across the 50 states.

Status of Special Education Information Flow at State Levels

2.69 Few states have special education information systems that are capable of providing management type information, that is, data that has predictive as well as evaluative applicability. The need for additional data to document services provided, analyze program status and effectiveness, and provide a base for predictive planning is quite evident. A major upgrading of the information flows within almost all states is indicated. To accomplish this objective, changes will have to be made by the states — major in some, and relatively minor in others.

2.70 The basic modification that applies to the majority of states is a change in thinking as to what purpose information can serve, and what must be done to obtain the necessary information. Many of the state special education agencies accept what data they have available to them and manipulate it into some sort of status report to the legislature and the public. There is an admission that more information could be useful to them in the management of operations, but many special educators are not skilled in the techniques of information system development. Data flow development often takes a low priority compared to education program development.

2.71 The first step in upgrading the information available to special education administrators is to provide the agencies with an understanding of what types of information can be made available, how to obtain it, and how to use it. The state survey conducted in conjunction with the Phase III effort has already accomplished this to an extent — at least 12 states have undertaken some modification of their information requirements as a direct result of discussions on Manpower Requirements Projection Model data needs. This does not necessarily mean that these states are going to immediately adopt the MRPM for their use, but they have recognized the utility of many of the data elements for management of their present operations.

2.72 Another major requirement for the improvement of information flow and data reliability is acceptance by special education agencies, both at state and local levels, of the fact that each data source and each data element is an integral part of the overall system. Increased data availability need not always require increased work in data collection. Frequently, coordinated and systematic data collection will require no increase in effort while yielding much additional information.

2.73 As previously mentioned, approximately one-third of the states are currently using automated data processing (ADP) techniques in the handling of their data. While there may be a few states that can rationalize their non-use of these techniques because of a small handicapped child population and/or the low volume of services that they can offer, the vast majority of states cannot easily obtain the information they need without benefit of ADP techniques. The manual operations are too time consuming for an already understaffed agency.

2.74 In very few of the states is the data pertaining to handicapped children inclusive of all of the sources of handicapped child education — public schools, state schools and institutions, and private facilities. Usually, each agency maintains its own records. While is is possible for a state special education agency to develop an information system that will contain the data pertinent to the areas of its own responsibility, this does not necessarily result in a total handicapped child data base. Such limited information would defeat the objective of the MRPM to project special education manpower requirements for the state's total handicapped child population. The reasons for the distribution within a state of responsibility for the education of handicapped children are not relevant to this study. It must be stressed, however, that interagency cooperation and communication are absolutely essential to the establishment of a common handicapped child data base that will be representative of the state's total service requirements and responsive to each agency's information needs. Further, in some states the special education agency's internal coordination and communication must be strengthened. Standardization of forms, data elements, data collection cycles, and timetables are all prerequisites to internal data flow stabilization.

2.75 Liaison between state level and local level special education personnel is also essential to the establishment of an information flow. In most states where state special education agency activity is confined to financial disbursements or where there is very little professional involvement, the information flow is minimal and often inadequate. Conversely, the greater the involvement of the state agency with the local agency, the better the information flow is likely to be. A corollary benefit to greater involvement is the improved capability of state personnel to analyze and utilize the information collected.

2.76 Although computer availability is a problem in many states, the relatively limited application of automated data processing (ADP) techniques to the special education information systems is more the result of a combination of other constraints. The lack of appreciation for the potential availability of additional information through the application of ADP, and a limited understanding of how to initiate and apply ADP techniques, are important obstacles to automating special education data processing.

2.77 The impetus to improve the information flow must come from within the special education agency. Additional leverage may be required to obtain the

cooperation of the LEA and other state and private agencies. One of the first actions that must be taken is the application for priorities to obtain the services of ADP technical personnel for system design and for computer usage.

Degree of Federal Involvement

2.78 The requirement to respond to Federal requests for information has been a prime motivator in the development of the existing special education information and further advancement in the quality and quantity of information will require continued Federal influence. Many state agencies need encouragement in the form of incentive and leadership. The MRPM is a form of incentive because, by providing the state agencies with management tools, it can help them to do their jobs better. The Phase III state visits provided initial leadership in many states by laying the ground work for improving the information flow and creating a desire for better data. The impetus that has been gained as a result of this effort should be supplemented and supported by continued Federal sponsorship of programs to assist the states with the development of their information systems.

2.79 A word of caution is warranted regarding Federal requests for information from the states. The more automated a state's information system, the quicker it can respond to information requests. However, a change in a data element to meet needs of the requestor can require considerable reprogramming at the state level. For example, in one instance a change in two data elements requested by the U.S. Department of Education caused the modification of 31 computer programs and entailed many man-months of effort. Changes should be thoroughly evaluated in the light of complications that may arise at the state level when responding to the request.

Manpower Requirements Projection Model Application Potential

2.80 Among the objectives of the state visit were explanation of data element structure and the purpose of the MRPM, and analysis of the information flow necessary to implement the model. In the process of accomplishing these objectives, it was possible for the survey analyst to evaluate the potential for application of the model.

2.81 The first conclusion that can be drawn from these evaluations is that the data elements required to support the MRPM were in themselves viewed as valuable information. It was not regarded as feasible to obtain all of the needed data immediately (meaningful data pertaining to the identified handicapped children not yet receiving special education services was seen as among the most difficult to obtain). Nevertheless, acceptance of the usefulness of the information required for the MRPM was not diminished by data development problems. It was recognized that some elements will simply require time to be fully implemented.

2.82 Further acceptance of the model concept and its potential for application is based upon the utility of various aspects of the model. Because the model has several capabilities, it has an appeal for various types of users and thus has greater potential for application.

2.83 As an intermediate output, the model projects state handicapped population. Such projections can have a most immediate impact on fund allocations. Since special education agencies are competing more and more with other state agencies for available funds, appeals for special education funds must be based on statistics of supply and demand as well as on the importance of special education programs in the lives of handicapped children.

2.84 Another capability of the model appeals to those who must develop training and hiring plans to ensure an adequate manpower supply. The manpower projection feature of the model makes available relevant information upon which to base manpower budgetary estimates.

2.85 A third feature of the model, the capability to simulate changes in the provision of special education services, appeals to those who must evaluate the effect of changes in the educational, technological, or political atmosphere on the special education effort. This capability permits the insertion of representative factors to determine "what happens if" specified conditions occur in a state.

2.86 The second conclusion, then, regarding the potential for application of the model is that insofar as the model concept is concerned, implementation should be no problem, other conditions (hardware available and a satisfactory information flow established) permitting.

2.87 Assuming acceptance of the model concept, the one major consideration affecting implementation is the availability of an information flow capable of providing the required input. None of the states had data immediately available for satisfactory application of the model, although a few had the necessary collection procedures formulated and could probably implement the MRPM within one or two annual data cycles. The absence of unserved handicapped population data is the greatest drawback to rapid implementation. Most states have some diagnostic programs in effect. Programs are usually administered at the local level and children are enrolled where vacancies exist, but frequently no report of unserved or "waiting list" children is made to the state level. In such cases, a procedure is required for systematically reporting diagnoses of the child population and for placing children on waiting lists when services are unavailable. If individual states can be convinced of the value of implementing the necessary diagnostic reporting procedures, then the model can be partially implemented using initial data, with ever-improving data being received as diagnosis approaches saturation. Those states (approximately 12) having mandatory legislation which induces an artificial constraint on diagnosis, should consider a means of encouraging identification of handicapped children without creating a firm commitment to provide immediate services.

2.88 Most of the other data elements can be incorporated in the existing information flows in all but a few of the states, so that data should be available for implementation of the MRPM in from two to three annual data cycles once the decision is made by each state to go forward.

2.89 The estimated time frame for application of the MRPM, once the state special education agency has decided to undertake the necessary information flow design/modification and implementation, is summarized in Table 2 , Estimated Time Frame For MRPM Implementation. The table also provides an indication of those states currently using automated data processing techniques in their present special education information systems. Those states that have initiated some action to improve their information flow and obtain MRPM data elements as a direct result of the survey visits are also shown.

2.90 Hardware availability remains as the last requirement upon which to draw a conclusion. As previously discussed, this is a two-pronged requirement; one requirement is for an information processing computer capability and another is for model application capability. As for the information processing capability required, adequate computers do exist in almost all state agencies although actual availability is scarce in some instances. Wherever possible, special education will have to establish a usage claim in order to be able to use the computer facilities. In most of the cases where the state computer facility cannot handle an additional work load, service can probably be obtained from a state university or procured from a contractor.

2.91 Although MRPM application requires greater computer storage capacity than most special education information processing needs, the large majority of states had satisfactory computer capability or access to it. Further, the small amount of time required per application (approximately fifteen minutes) should create no real difficulty in the scheduling of computer use. It is concluded that computer availability should be no serious problem to model implementation.

2.92 Based upon analysis of survey findings in all of the states, overall conclusions regarding the MRPM are summarized as follows:

- The model is much needed.
- The concept has been favorably received.
- Some surmountable problems will be encountered in creating the necessary information flow.
- There should be no serious constraints because of computer capacity limitations.
- Once the implementation decision has been made by the state, the MRPM could be operational in two to three annual data cycles in most states.

2.93 Conditions vary from state to state, and in some states they may be more conducive to early MRPM implementation than in other states.

STATE ANALYSIS REPORT FORMAT

2.94 Although the format is similar for each state analysis report, the material contained therein is descriptive of each state's unique special education information flow. The recommendations are tailored to provide the subject state with the guidance necessary to develop an information flow that will enable it to utilize the MRPM, and also to improve the availability of information for other special education management functions.

2.95 The sections contained in each state report are briefly described as follows:

- Introduction — A standard statement common to all reports explaining the purpose and objectives of the survey visit and the intent of the Manpower Requirements Projection Model application.
- Summary — A brief summarization of the survey findings, recommendations, and model implementation potential.
- Responsibilities for Special Education — An explanation of the organizational interfaces that affect the state's educational services to handicapped children. Frequently, an informal chart is included, which illustrates the many facets involved in providing education to the state's handicapped child population.
- Data Element Evaluation — A data-element-by-data-element discussion of the current availability of information necessary to support the MRPM. It includes an analysis of existing reporting formats and suggests data sources for elements not presently included in the information flow.
- Processing Potential — A report on the type and availability of hardware and personnel available for developing and maintaining a special education information flow. The analyst's impression of the acceptance by state personnel of the model concept is also indicated.
- Additional Factors — Comments about conditions or circumstances occurring in the state, which indirectly affect the flow of special education information.
- Recommendations — Specific suggestions to the state on how to develop an information flow for those data elements that are currently not available at the state special education office level. This

frequently includes suggestions for new reporting formats for modifications to existing formats and procedures.

- Resource Requirements - Manpower — An estimate of the working time, by types of manpower skills, that would be required to design, implement, and maintain the information flow recommended in the report. It also suggests the elapsed time frame in which implementation could be accomplished, once the decision was made to implement the system.
- Persons Interviewed — A list of those persons interviewed, and their positions, who contributed to the analyst's fund of information pertaining to the state.
- Additional Reporting Formats — An optional section containing copies of some of the relevant reporting formats currently in use in the state, which were referred to in the report.

2.96 The individual state analysis reports are based upon the findings and conclusions derived during the state survey visit. A draft of each state report was submitted to that state's special education director (or his equivalent), with a copy sent to the state's chief education officer. It was requested that any comments pertaining to report accuracy or content be returned to the contractor so that the final report could accurately reflect the facts presented. Of the 50 states, 37 responded with comments ranging from complete satisfaction with and appreciation for the report content, to error correction and a desire for time to thoroughly study the feasibility of the report recommendations. Completely negative response was received from only one state.

2.97 The states who responded to the request for comment, or acknowledgement of report receipt and review, as of the date of publication of this report, were:

Alabama	Illinois	Nevada	Oregon
Arizona	Iowa	New Hampshire	Pennsylvania
Arkansas	Kentucky	New Jersey	Rhode Island
Colorado	Maryland	New Mexico	South Dakota
Connecticut	Massachusetts	New York	Texas
Delaware	Michigan	North Carolina	Vermont
Florida	Minnesota	North Dakota	Virginia
Georgia	Mississippi	Ohio	Wisconsin
Hawaii	Missouri	Oklahoma	Wyoming
Idaho			

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The research reported herein was performed pursuant to Contract No. OEC 0-9-08928-0710 with the Bureau of Education for the Handicapped, Office of Education, U.S. Department of Health, Education, and Welfare. Contractors undertaking such projects under Government sponsorship are encouraged to express freely their professional judgment in the conduct of the project. The points of view or opinions stated do not, therefore, necessarily represent official Bureau position or policy.

ALABAMA STATE ANALYSIS REPORT

I. INTRODUCTION

Sponsored by the Bureau of Education for the Handicapped (BEH), Operations Research, Inc. (ORI) has developed a mathematical model that provides the framework for systematic consideration and evaluation of major elements contributing to the determination of special education manpower needs. The model has been designed for application by state education agencies and, when fully implemented, will assist each state in the systematic prediction of its own special education manpower needs, based upon individual state educational characteristics. The model will simulate present and future manpower needs under varying assumptions regarding changes in personnel/pupil contact ratios, the educational program mixes, the child participation rate, or any combination of these variables.

Following development of this Manpower Requirements Projection Model, a visit was made to each of the 50 state special education agencies in order to familiarize the states with the objectives of the program and to conduct a survey of current state information flow procedures. The purpose of the survey was to review and analyze the capability and potential for utilization of this model by state agencies responsible for the education of handicapped children. The survey included an analysis of:

a. The capability of existing information flow procedures to provide the necessary model input data

b. The existing automatic data processing capability to process the model program

c. The special education staff capability and desire to utilize the model.

This report presents the findings of the survey in the State of Alabama and contains recommendations pertaining to the establishment of information flow procedures for model utilization as well as to the improvement of general information availability for special education program management. The data development status is summarized in Table 1 at the end of this report.

II. SUMMARY

The Program for Exceptional Children and Youth (a section in the Department of Education) will, on a regular basis starting in the Fall, 1970 receive from each school district all information required by the Manpower Requirements Projection Model; summary compilation of that data will be done manually for several years. Data is currently tallied for district and/or by handicap but not by age or elementary/secondary. Because current data processing capability does not include the FORTRAN language, actual running of the computer model may therefore have to be done by BEH, unless the program is converted to the PL/1 language.

The two state schools and one state institution will participate in data collection whenever called upon. Private school information does not exist at state level.

Statewide, about 15 to 20 percent of the estimated need for special education services is being filled. The proposed information flow will be of primary use in developing accurate data for use in program planning by the state; one of the tools for such planning is the model and its results can be used to predict documented need.

III. RESPONSIBILITIES FOR SPECIAL EDUCATION

The organization chart showing the lines of responsibility for special education in Alabama is depicted in Figure 1. The State Department of Education is headed by an elected Superintendent and an appointed board. Each of the 67 counties in the state is a single school district, except that 43 cities are separate independent school districts. These 120 districts are treated administratively as equals by the State Department of Education.

The only state institution providing significant special education is part of the Department of Mental Health, and both state schools (for deaf and blind) are operated independently of the education department. The state education department has responsibility for recommending curriculum, guidelines, and rules and regulations for these schools and institutions but has no control over operations.

Within the Department of Education, special education is operated by the program for Exceptional Children and Youth, a section in the Executive Division, reporting nominally to an Assistant Superintendent but in many respects autonomous for planning and policy. It has authority and responsibility for:

a. Guidelines for local level program initiation, operation, and curriculum

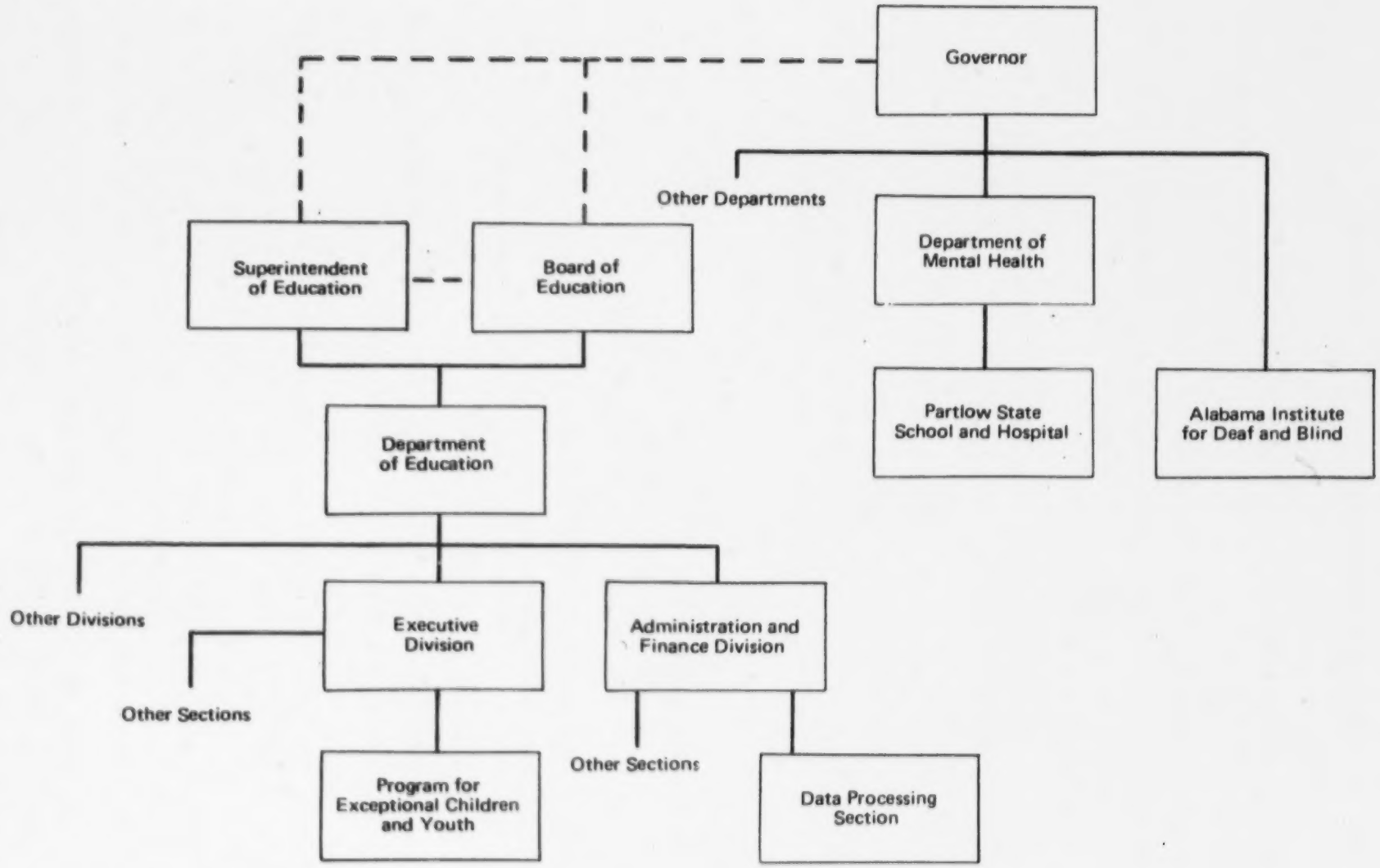

FIGURE 1. ORGANIZATION OF ALABAMA STATE AGENCIES PROVIDING SPECIAL EDUCATION PROGRAMS

b. Approval of local public school programs, classes, and "units" (amounts of state reimbursement)

c. Consulting services for local administrations, including both the educational and administrative areas

d. In-service training programs and administering PL 85-926

e. Administering of Title VI funds and programs

f. Administering and evaluating the special education segment of Title III programs and Vocational Education programs

g. Psychological (diagnostic) services are requested by local administrations. Approximately 15 to 20 of the local systems have their own diagnostic services available. Less than 20 percent have full-time coordinators or supervisors for special education.

All data processing for the Department of Education is handled by a section in the Administration and Finance Division of the department.

Outside of the Department of Education, the Partlow State School and Hospital, the only state institution providing its residents with a special education program, is an essentially autonomous unit of the Department of Mental Health. Its educational program is formulated, operated, and controlled by its own staff, although an attempt is made to approximate Department of Education curriculum.

The state operated Alabama Institute for the Deaf and Blind (at two separate locations) has complete autonomy in the state organization, reporting nominally to the governor. It is, in addition, a Federally funded National Area Center for the study of deaf and blind persons.

The Crippled Children Service Section of the Rehabilitation and Crippled Children Division in the Department of Education provides, in its own words, a "medical program with a social goal" currently treating about 11,000 persons under age 21. Anyone satisfying the age, residence, medical (certification by any M.D. or the Department of Health), and financial need criteria is eligible. Although almost all patients have one or more nonsensory physical handicaps, no services which would generally be described as "educational" are provided. The Crippled Children Services (CCS) is mentioned here primarily for its potential as a reporting source, should the service ever expand to a mandatory-examination level.

Currently, when CCS services are provided to some one of school age, the local school district is formally notified. However, no attempt is or can be made to be all inclusive in services provided to all in need; only those formally reported are treated, and in any event essentially nonsensory physical handicaps alone are represented.

Private schools may optionally apply to the state for accredidation but in any event do not report statistical or financial information to the state education department, and are not in general subject to its authority.

IV. DATA ELEMENT EVALUATION

Number of Children Identified As Needing Special Education

Annually, in the spring, three groups of forms are sent to each of the 67 county and 53 independent school systems. Samples of the three forms are included in Section X. The first group is titled, "Application for Class for Exceptional Children (see page D1-17)," the second, "Evaluation Record on Special Class (see page D1-15)," and the third, "Progress Report — Class for Exceptional Children (see page D1-16)." Information for the forms is supplied by the local superintendent's office.

For each special education class proposed for the following school year and for which state financial aid is requested, a separate "Application" is returned directly to the Exceptional Children Section by July 15. This form is required either to continue a previously approved class or to initiate a new class. Among other items, the application includes the handicap, the educational program, and the estimated initial number enrolled.

For each current special education class which has previously been approved, a separate "Evaluation" is returned directly to the Exceptional Children Section by September 30. Among other items, the evaluation includes the class handicap and each student's name, age, exceptionalities (prose description), and an indication of whether he was a new enrollee in the class (as opposed to "carried from last year"). Thus, with some minor modifications to include educational program type and both timing and explanation (e.g., "intrastate transfer" or "class split") of new entrants and attritees, the "Evaluation Record on Special Class" form would collect all the necessary data about that portion of the identified handicapped child population enrolled in special education. The data items concerning the timing and explanation of movements into and out of this enrolled population are year's end items, but they can be reported at school opening on the same form as fall enrollment if they are understood to refer to the entire preceding year.

The third currently used form, a "Progress Report" for each current special education class, is returned directly to the Exceptional Children Section by April 30. Among other items, the progress report includes the handicap, the number enrolled as of the form-preparation date, the whole-class age range, and the number of pupils enrolled in certain other programs (Vocational Education, etc.). Data from this form is not needed as model input unless it is decided to collect information about new entrants and attritions semi-annually, both on this "Progress Report" and the "Evaluation" form.

The state schools and the state institution are amenable to use of the "Evaluation" form, but all private school data cannot be available in general until the state formally "knows" of each private school's existence[1] which, at the

[1] Numerous schools left the state system during desegregation controversies.

present time, seems highly unlikely, for reasons which include politics (thus beyond the authority of the special education section).

The Crippled Children's Service provides an annual summary, by handicap (mostly nonsensory physical in detail) but not including age, of the number of persons served in each county. As previously discussed, this data has little impact on the special education section's needs because the service reported is not educational.

Number of Children Moving Into and Out of Identified Handicapped Child Population

Because of the overwhelming need for special education services in all local school districts in Alabama, the districts do not formally keep track of the children who are identified as needing special education but are not receiving it, i.e., a waiting list. When funds become available for a new special class or when a vacancy exists in an established class, enough children are diagnosed or "recommended" to fill that class, and the selection process terminates. Thus, waiting list data cannot be expected to flow to the state until and unless the local districts can be convinced that the retaining of such information is useful for their, as well as the state's planning purposes. However, with the need for special education services so overwhelming capacity, information about such need is currently not considered a variable for planning purposes, even at the state level.

For estimates of the unserved handicapped child population, Alabama relies upon the BEH published prevalence rates. Here too, because of the current overwhelming need for special education services, there is little point in using time and money to undertake a study to determine the validity of these rates in Alabama at this time.

Using prevalence rates is an interim method of estimating the total handicapped child population. These rates are a starting point for such an estimation, but to be useful in the long run, not only for applying the model but for other state planning purposes, they should be validated with actual data. Such validation can be done by collecting appropriate data and making successive approximations. Later documents pertaining to this project will contain more detailed descriptions of alternative methods of validating these rates.

Projections of the school age population (0-21) by single year of age are not available as far as this analyst could ascertain.

Policy oriented data used by the Manpower Requirements Projection Model to simulate special education can easily be provided by Dr. Faye Brown (Chief Consultant, Exceptional Children and Youth Section) and/or her staff. These data elements are:

a. Trends in the number or proportion of enrolled children being served in each educational program, by target group (an educationally meaningful combination of handicapping condition and education level); termed educational program mix

b. The types of personnel serving each target group in each educational program and their associated personnel/pupil contact ratios.

The number of teachers employed, by occupation type, in Alabama can be tabulated from either the fall "Evaluation" form or the spring "Progress Report," whichever the state desires to use.

V. PROCESSING POTENTIAL

Hardware

The Alabama Department of Education has available for its exclusive use an IBM 360/40 computer, with a 65K-byte core storage. Currently, there is no specific computer rental charge for internal usage. The machine has all the hardware to implement FORTRAN, but the actual FORTRAN processor was not included when the operating system was generated. Because FORTRAN programs cannot be compiled on this machine, the Manpower Requirements Projection Model computer program could be compiled elsewhere and the resulting object program cards used to run the model on Alabama's machine. Another alternative is to obtain a PL/1 version of the model since Alabama's machine does have a PL/1 processor. The remaining alternative is to prepare all the input and send it to BEH to be run.

The data processing staff and facility are available to the entire education department, although current priorities preclude more than nominal support for special education (see Section VI). There is no specific charge to the divisions for services.

There are also available a collator, sorter, and interpreter, but no tabulating machines.

Personnel

Specification of input parameters needed by the model can be done by the special education staff. Since the data processing section has its own full-time key punching facility and computer-operator group, the input data can easily be put on punched cards and, if the aforementioned hardware problems are resolved, the model can be run. The primary computer languages used at the facility are PL/1 and BAL, with none of the current data processing staff knowledgeable in FORTRAN. Both the special education and data processing sections have staff that can analyze and evaluate the output from the Manpower Requirements Projection Model.

Acceptance

The special education section is well aware of its current lack of statewide statistics, and was recently on the verge of initiating its own, less detailed, system. If the work of compilation is to be done manually by the

special education section, there may be insufficient staff available (as of this writing); Section VI indicates some problems of having the data processing section compile the data automatically. There is no objection to having BEH run the prediction model.

VI. ADDITIONAL FACTORS

Based on the nationally estimated prevalence rates for the various handicaps, Alabama now serves about 19 percent of those eligible. Without taking into account either population growth or cost growth, 9 years of service growth at a compounded rate of 20 percent will be required to meet today's need. With the other factors, perhaps 15 years will be needed. In addition, the cost growth factor is somewhat within the control of the local school districts because Alabama's special education services are currently dictated jointly by state budget and local budget.

Considering this large need, it is easily understood why the state does not need the Manpower Requirements Projection Model to predict short term need. Such a model would become useful at such time as either the amount of special education services greatly increases, the state legislature begins to require hard data as documentation of need to increase funding levels, or the special education section desires to use it to analyze the manpower implications of changes in policy.

The data processing facility in the state education department has gotten off to a very late start in both sophistication and initiative, in good part due to management. Data processing, by its own estimate, will require at least five years to install a rudimentary MIS data base for pupils and teachers, and currently compiles virtually no data that can be used for one.

Because of the current priorities, there is almost no possibility that current data processing staff can be used in any significant way in the near future to implement an automatic data processing system for special education needs. If such a system is desired, funds would have to be found to contract for outside help in setting it up.

VII. RECOMMENDATIONS

The "Evaluation Record on Special Class" form should be modified to include the specific educational program, and new entrant and attrition data. On this "Evaluation" form, the local school districts currently report students by name, age, etc., to the state. To ease the state's task of the manual compilation and eventual keypunching of enrollments, entrants, and attritions, a standard four row matrix chart, containing age and number could be added to the bottom of this form. At the time that the data is computer processed, each

handicap type should be requested in code (e.g., blind is "1", deaf is "2") in addition to the prose description.

Taking into account the current status of data processing in the Alabama Department of Education, it appears reasonable to specifically recommend the manual compilation of the desired data, at least for the next few years. The recommended "Evaluation" form and suggested entry and withdrawal codes, presented in Figure 2 and Table 2 respectively, would be conducive to such manual compilation because the single document will hold all requested data. It is also recommended that the timing of the form remain unchanged, i.e., that it be returned to the Department of Education by September 30 each year. The first draft of this modified "Evaluation" form was drawn up by the ORI staff member who visited Alabama, was discussed with and accepted by the Exceptional Children and Youth Section, and was sent to the Department of Education's print shop. The form presented in Figure 2 contains only minor modifications to the first draft which should make it clearer and thus easier for the local districts to fill out.

Compiling the information on entrants and withdrawals over at least three years will enable the state to alert those local districts whose values for variables are unusual or suddenly change.

The Partlow State School and the Alabama Institute for Deaf and Blind should fill out and return to the Exceptional Children Section the "Evaluation" form as revised.

Because of its age range (birth to 21), handicap type (mostly nonsensory physical), voluntary referral, and financial need restrictions, the group treated by the Crippled Children Service is sufficiently nonrepresentative that it need not be reported at the state level to the Exceptional Children Section for planning purposes.

VIII. RESOURCE REQUIREMENTS—MANPOWER

An addition to the special education section's manpower that will be required to implement the recommended reporting system and manual compilations will be a part-time clerk. Such a person would do the actual numerical compilations when the data has been received in the Exceptional Children and Youth Section. It may also become necessary the first year or two to assign a person half-time to the task of coordinating with and helping the local districts to ensure their understanding of the new form and to ensure completeness and validity of the reported data. Semiannual reporting and compilation will, of course, double these manpower needs.

State Department of Education
Ernest Stone
State Superintendent of Instruction

School System _____

EVALUATION RECORD SPECIAL CLASS
School Year 19 _____ --19 ____

Superintendents
Approval _____

White Copy for State Department of Education; Blue Copy for Superintendent; Pink Copy for Teacher; To Be Returned to State Department of Education by September 30.

Teacher _____ Program Type _____ Special Condition _____

Academic Degree _____ Local Supervisor _____ School *E J S* _____

No. of Credits Special Ed. _____ No. Enrolled as of this Date _____

Years Training _____ Psychologist _____ No. Enrolled at End Previous Year _____

Class Level _____ Principal _____ _____

Name of Pupil	Age		Sex	Medical Diagnosis (Physical Defects)	Phychological Diagnosis					Entry and Withdrawal Codes
	Yrs	Mos			Date Tested	Test Type	I.Q.	M.A.	Remarks	

Chronological Age	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Current Enrollment																					
Attrition for Year Ending This Date (W4-W7)																					
Entrants for Year Ending This Date (E4-E6)																					

See Instructions for Details and Codes

FIGURE 2. MODIFIED "EVALUATION" FORM, AS RECOMMENDED FOR ALABAMA

TABLE 2

SUGGESTED CODES FOR ENTRY TO AND WITHDRAWAL FROM SPECIAL EDUCATION CLASSES

Entry Codes (E)		Withdrawal Codes (W)	
0	Continued from last year in this class	0	(not applicable)
1	Intrasystem transfer	1	Intrasystem transfer
2	Class split	2	Classes combined
3	Intrastate transfer	3	Intrastate transfer
4	Interstate transfer	4	Interstate Transfer
5	Regular class transfer	5	Regular class transfer
6	Resident entered system	6	Resident left system
		7	Death

Code is: ① E or W, ② digit from the above, ③ ④ two digit month code for time of entry or withdrawal. No month code required for EO code.

January is 01
December is 12

Code example:

Entry from another state in September—E4
Student graduated from system in June—W6

If an automated system, that is not part of a larger, integrated system, is to be used to produce compilations and subtotals by various categories, additional personnel types needed will be a systems analyst (about two man-weeks), and a computer programmer (about one man-month). If subtotals are to be produced, a semi-automatic processing system, by "sorter" or "tabulator," would be less efficient than an automatic one and would require more manpower to operate.

In summary, the manpower requirements are:

a. For design and implementation of an automated data summary system, approximately 6 man-months of special education effort, $\frac{1}{2}$ man-month of forms design work, $\frac{1}{2}$ man-month of systems analyst time, and 1 man-month for programming, over a period of 12 to 18 months. Maintenance of the system will require an annual effort of about $2\frac{1}{4}$ man-months of combined effort.

b. For design and implementation of the manual system, approximately 6 man-months of special education effort, $\frac{1}{2}$ man-month for forms design, and about 2 man-months of clerical time over a period of 12 to 18 months. Maintenance will require annually about 2 man-months of clerical effort.

IX. PERSONS INTERVIEWED

Dr. Faye Brown	Chief Consultant, Exceptional Children and Youth Section, Executive Division, Department of Education
Mr. William Roscoe Johnson	Computer Supervisor, Data Processing Section, Administration and Finance Division, Department of Education
Catherine Rise	Principal, Alabama Institute for the Deaf (Talladega)
Mr. George Dabbs	Principal, Alabama Institute for the Blind (Talladega)
Mrs. Lila Niles	Principal, Partlow State School and Hospital, Department of Mental Health
Mr. Earl Davis	Administrator, Childrens Center, Montgomery Public Schools
Margaret Beasley	Administrator, Crippled Children Services Section, Rehabilitation and Crippled Children Division, Department of Education

X. CURRENT REPORT FORMATS

Evaluation Record on Special Class

Progress Report—Class for Exceptional Children

Application for Class for Exceptional Children

State Department of Education
Ernest Stone
State Superintendent of Education

School System ALABAMA
Signed: _____
Superintendent

SENT IN SPRING

Evaluation Record on Special Class, School Year 19___ - 19___

Make in triplicate and file the white copy with the State Department of Education with each application, give the pink copy to the special class teacher, and the blue copy is for the Superintendent's Office.

Each year give the current chronological age. Refigure the mental age and the formula for this to change chronological age to months and multiply by the I.Q. Divide by 12. Quotient is years and the remainder is the months.

RETURN WITH FALL ENROLLMENT BY SEPT 30

School _____ Type of Class _____ Teacher _____ Principal _____ Psychologist _____

Name of Pupil	Age		Sex	Medical Diagnosis (Physical Defects)	Psychological Diagnosis					New Admission
	Yrs.	Mos.			Test Admin.	Date Admin.	I.Q.	M.A.	Remarks	

(REPRODUCED FROM STATE FORM)

State Department of Education
Program for Exceptional Children and Youth

Alabama
County - City School System

1967-68
PROGRESS REPORT - CLASS FOR EXCEPTIONAL CHILDREN

(REPRODUCED FROM STATE FORM)

Type of class (check one):

( ) Educable Mentally Retarded
( ) Physically Handicapped
( ) Multiple Handicapped
( ) Special Education & Rehabilitation
( ) Learning Disabilities
( ) Hard-of-Hearing
( ) Speech Therapy
( ) Partially Seeing
( ) Homebound
( ) Emotionally Disturbed
( ) Other (specify) _____
( ) Hospital
( ) Blind
( ) Deaf
( ) Trainable
( ) Socially Maladjusted

Number of pupils in class _____

Chronological age range from _____ to _____

Mental age range in years and months from _____ to _____

Number of pupils enrolled in Vocational Education Courses _____

(a) Home Economics _____
(b) Agriculture _____
(c) D.E. - D.O. _____
(d) Business and Office Education _____
(e) Trade and Industrial Education _____

Are the Vocational Courses satisfactory? Yes _____ No _____ If the answer is no, write the changes desired on the back of the sheet.

Housing - Describe your room - height, width, length, windows, etc. (Trailers are not acceptable)

Problems - List your three major problems.
1. _____
2. _____
3. _____

List three ways the State Consultants can be of more help to you.
1. _____
2. _____
3. _____

(Please fill out and return to Alpha Brown, State Department of Education, by May 1, 1968)

Signed: _____
Teacher

School: _____

Date: _____

Address: _____

Alabama

State Department of Education
Ernest Stone
State Superintendent of Education

_____
County - City System

Sent in spring

FOR NEW CLASSES ONLY, NOT IF CONTINUED

APPLICATION FOR CLASS FOR EXCEPTIONAL CHILDREN, 19 ___-___
(Submit in triplicate for each class)

Return Not Later Than July 15

PART I. LOCATION AND PHYSICAL FACILITIES

A. Name of school in which class is to be housed _____ _____
B. School Address _____ _____
C. Regular classroom (check one) Elementary ___ Other _____
D. Trailers are not acceptable. (Describe on back)
E. Class session begins _____ a.m. closes _____ p.m.

(REPRODUCED FROM STATE FORM)

PART II. PERSONNEL

A. Name of teacher as on ... _____ Rank ____
B. Home Address ___ _____
(City & State) (Zip Code)

PART III. TYPE OF CLASS (check one) Number in Class _____

A. Emotionally Disturbed _____
B. Socially Maladjusted _____
C. Learning Disabilities _____
D. Educable Mentally Retarded ____
E. Physically Handicapped _____
F. Deaf _____
G. Homebound _____
H. Hospital _____
I. Blind _____
J. Trainable _____
K. Speech Therapy _____
L. Hard-of-Hearing _____
M. Partially Seeing _____
N. Other (specify) _____

PART IV. EXTRA TRANSPORTATION (Exclude pupils who can ride school buses on regular routes)

A. Pupils
1. Number to be transported _____
2. Type of vehicle _____
3. Cost per day $_____
4. Days to be transported _____
5. Number of miles vehicle travels beginning with first pupil _____

B. Teachers of homebound children
1. Miles to be traveled per day by teacher _____
2. Days to be traveled _____

IF THIS CLASS IS MOVED FROM ONE SCHOOL TO ANOTHER OR IF THE TEACHER IS CHANGED, I will notify the State Superintendent of Education immediately. I hereby certify that the requirements of the State Plan, Program for Exceptional Children will be met.

Date _____ Signed: _____
LEA Superintendent

* * * * * *

APPROVED FOR _____ Teacher Unit; $ _____ Transportation

Date _____ Signed: _____
State Superintendent of Education

TABLE 1
SUMMARY OF DATA DEVELOPMENT STATUS,
ALABAMA

DATA ELEMENTS			Local Public School Districts: CURRENT STATUS	Local Public School Districts: METHOD OF DEVELOPMENT	Local Public School Districts: SOURCE OF DATA	Other State Schools and Institution: CURRENT STATUS	Other State Schools and Institution: METHOD OF DEVELOPMENT	Other State Schools and Institution: SOURCE OF DATA	PRIVATE SCHOOL DATA
NUMBER OF CHILDREN IDENTIFIED AS NEEDING SPECIAL EDUCATION	ENROLLED	AGE	Available but not compiled	Modify existing "Evaluation" report form and compile manually	Classroom teacher	Not available to exceptional children and youth section	Voluntary submission of the modified "Evaluation" report form	Classroom teacher	No data available currently for any of the items because schools may optionally not be accredited. Development highly unlikely under current situation.
		HANDICAPPING CONDITION	Implied on current report form but not compiled						
		EDUCATION PROGRAM	Available and compiled						
	ON WAITING LIST	AGE	Not available	Development currently unlikely	Chief school district officer or his representative	Not available	Not applicable unless data is developed by local districts	Principals of schools and institution	
		HANDICAPPING CONDITION							
NUMBER OF CHILDREN MOVING INTO AND OUT OF IDENTIFIED HANDICAPPED CHILD POPULATION	NEWLY DIAGNOSED AS NEEDING SPECIAL EDUCATION	AGE	Not available except for new admission to special class	Modify existing "Evaluation" report form to get new entrants and attritions from the enrolled population only	Classroom teacher	Not available to exceptional children and youth section	Voluntary submission of the modified "Evaluation" report form	1. Principals of schools 2. Classroom teacher through principal	
		HANDICAPPING CONDITION							
	INTRA-STATE TRANSFERS	AGE	Not available						
		HANDICAPPING CONDITION							
	ATTRITION FROM THE IDENTIFIED HANDICAPPED POPULATION	AGE	Not available						
		HANDICAPPING CONDITION							
		REASON							
YEARLY PROJECTIONS OF THE CHILD POPULATION, BY AGE			None available beyond U.S. Census Bureau figures	Develop own or borrow formula	State Bureau of Vital Statistics?				
DATA USED TO SIMULATE SPECIAL EDUCATION	EDUCATION PROGRAM MIX TRENDS		Available as defined by legislation, policy, and planning	Not applicable	Chief consultant of exceptional children and youth section	Available as defined by legislation, policy, and planning	Not applicable	Principals of schools and institution	
	TYPES OF PERSONNEL AND PERSONNEL/PUPIL CONTACT RATIOS	TARGET GROUP							
		EDUCATION PROGRAM							
OPTIONAL: NUMBER OF SPECIAL EDUCATION PERSONNEL EMPLOYED, BY TYPE			Available but not compiled	Compile manually from "Evaluation" report form	Classroom teacher	Not available to exceptional children and youth section	Voluntary submission of the modified "Evaluation" report form	Classroom teacher	

ALASKA STATE ANALYSIS REPORT

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The research reported herein was performed pursuant to Contract No. OEC 0-9-08928-0710 with the Bureau of Education for the Handicapped, Office of Education, U.S. Department of Health, Education, and Welfare. Contractors undertaking such projects under Government sponsorship are encouraged to express freely their professional judgment in the conduct of the project. The points of view or opinions stated do not, therefore, necessarily represent official Bureau position or policy.

ALASKA STATE ANALYSIS REPORT

I. INTRODUCTION

Sponsored by the Bureau of Education for the Handicapped (BEH), Operations Research, Inc. (ORI) has developed a mathematical model that provides the framework for systematic consideration and evaluation of major elements contributing to the determination of special education manpower needs. The model has been designed for application by state special education agencies and, when fully implemented, will assist each state in the systematic prediction of its own special education manpower needs, based upon individual state educational characteristics. The model will simulate present and future manpower needs under varying assumptions regarding changes in personnel/pupil contact ratios, the educational program mixes, the child participation rate, or any combination of these variables.

Following development of the model, a visit was made to each of the 50 state special education agencies in order to familiarize the states with the objectives of the program and to conduct a survey of current state information flow procedures. The purpose of the survey was to review and analyze the capability and potential for utilization of this model by the state agencies responsible for the education of handicapped children. The survey included an analysis of:

a. The capability of existing information flow processes to provide the necessary model input data

b. The existing automatic data processing capability to process the model program

c. The special education staff capability and desire to utilize the model.

This report presents the findings of the survey in the State of Alaska, and contains recommendations pertaining to the establishment of information flow procedures for model utilization as well as to the improvement of general information availability for special education program management. The data development status is summarized in Table 1 at the end of this report.

II. SUMMARY

The development of an information flow in Alaska that will support the Manpower Requirements Projection Model is already underway. The Special Education Consultant Office, in cooperation with the Bureau of Indian Affairs, immediately initiated steps to implement an information flow after the survey visit. Although this initial effort was not all inclusive of the data element requirements, it accomplished some major objectives, not the least of which was the coordination between intra-state agencies and a Federal agency.

The attitude of, and subsequent action by, the personnel interviewed is indicative of the realization of the need for more special education information.

This report contains some recommendations for collecting those data elements which are not currently provided for and also for potential improvements in the present procedures.

III. RESPONSIBILITIES FOR SPECIAL EDUCATION

The administration of the public school education system in Alaska is the responsibility of the State Department of Education. However, the operational responsibility is divided into two categories, the state-operated schools and the borough/district schools.

The state-operated schools are located in rural areas, serving about 5000 students from kindergarten through eighth grade, and on military bases, serving approximately 10,000 students from kindergarten through eighth grade and includes regional high schools. Borough/district schools do not receive regular education state funds and are operated independently.

The Bureau of Indian Affairs (BIA) educates approximately 5000 Indian children in its elementary schools and one instate regional boarding school.

The responsibility for educating handicapped children is also divided. Special Education Consultants within the Department of Education are responsible for program approval and student applicant approval in the borough/district schools. The state-operated schools provide their own special education programs, as does the BIA.

There are also several state institutions which provide special education services independently of state Special Education Consultant participation, including the Harborview Memorial Hospital for severely retarded and the McLaughlin Youth Center in Anchorage, operated by the Department of Correction.

The State participates financially in sending handicapped children to out-of-state schools when no special education facilities are available within the state.

There is very little privately sponsored special education in Alaska and this limited activity only serves children at the pre-school level in a shelter type workshop.

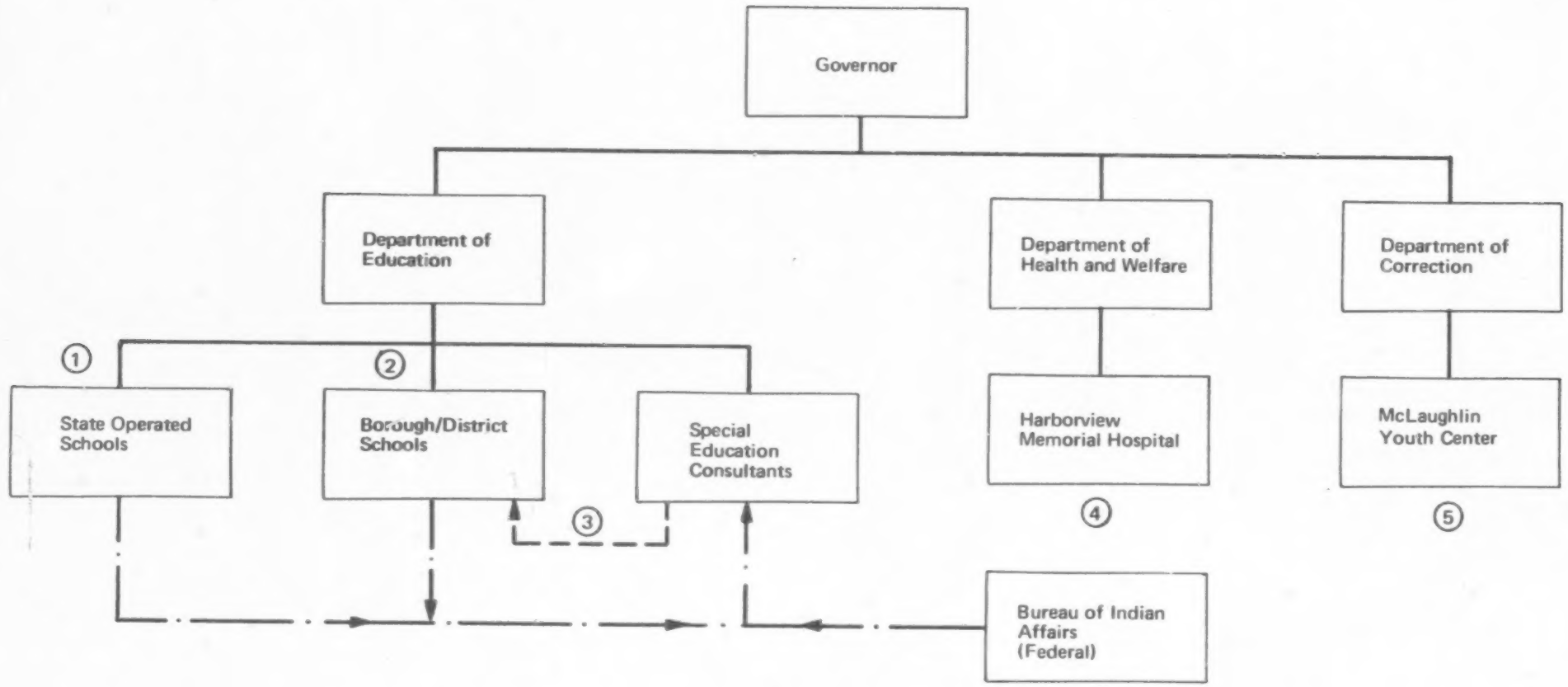
Recently, an information flow for reporting data on handicapped children has been initiated. The state-operated schools, the borough/district schools, and the BIA schools all use a standardized format to report data to the Special Education Consultant Office.

The relationship that exists among the various agencies that participate in the education of handicapped children in Alaska is informally presented in Figure 1. This diagram shows only those agencies which have some responsibility for handicapped child education and is not intended to include all of the many other functions which each agency performs.

IV. DATA ELEMENT EVALUATION

Some specific data elements are necessary to the use of the Manpower Requirements Projection Model. The information which these data elements provide may also be very useful to the Special Education Consultants for other operational analyses. Those data elements and their potential sources are discussed in the following paragraphs.

At the time of the ORI survey visit, few of the data elements required by the model were available at the state level. This absence of an organized information flow (and therefore, the lack of preconceived objections) and the realization by the Special Education Consultants that they required much more information than was then available, provided an environment conducive to rapid initiation of corrective action. Within five weeks and with the cooperation of the BIA, a form was developed and distributed to all district superintendents, the director of state-operated schools, and BIA educational superintendents, asking for their cooperation in collecting special education data. Although this form was initiated to collect survey data, the information flow created will be maintained and the data will be input, via keypunched cards, into an automated data processing (ADP) system.



——— · ——— Handicapped Child Data Flow

1 Department of Education has Administrative and Operational Responsibility

2 Department of Education has Administrative Responsibility Only

3 Special Education Consultants Have Program and Pupil Enrollment Approval Responsibilities

4 Hospital for Severly Mentally Retarded

5 Detention Center

FIGURE 1. RESPONSIBILITY FOR HANDICAPPED CHILD EDUCATION IN ALASKA

Number of Children Identified as Needing Special Education

There are two categories of information pertinent to the identified handicapped child population; those enrolled in special education programs, and those diagnosed as needing special education services and waiting to be enrolled.

Enrollments. The enrollment data required includes a count of the number of children by handicapping condition, single year of age and special education program. The data sheet (hereinafter referred to as Form A for convenience), shown in Figure 2, which is currently in use, collects this information by individual student. The Special Education Office, at the present time, manually summarizes the individual sheets to determine the totals. Future processing will utilize ADP techniques to eliminate this manual process.

Waiting List. The other facet of the handicapped child population, those that have been identified and are awaiting special education services, must be considered when planning for total services required.

"Form A" provides the mechanism for collecting waiting list data (age and handicapping condition), if in fact, the local districts do undertake diagnosis of children beyond their immediate capacity to provide services. "Form A" completion instructions for column 17, codes b and c, apply to waiting list pupils. Alaska has mandatory legislation that requires that a special education class be established when five or more children of a handicapped condition have been identified and diagnosed. Because of the shortage of qualified diagnostic personnel, many children are not referred for diagnosis, or if referred, do not receive qualified diagnosis. This condition results in the actual enrollment of officially undiagnosed children in special education classes. It may also result in not establishing special education programs where the handicapped population would require it. In addition, much of the rural population consists of widely separated small villages of Indians and Eskimos, where the number of children in a single handicapped group may not warrant the establishment of a special education program. In this case, one of three things can happen, (1) the child may be sent to board in an in-state or out-of-state facility, (2) he may be included in a regular class having a teacher with little or no special education skills, or (3) he may not receive any educational services at all.

The net result of these problems, as they refer to the accumulation of special education waiting list data, is that (1) the more populous areas should endeavor to diagnose the children in their communities and where services are not available, the local districts should report the number of waiting list pupils on "Form A", (2) waiting lists for state-operated schools, regional schools, and state institutions should be reported on "Form A", and (3) in the very rural areas where actual special education services have a low probability of becoming available (other than in the form of guidance material to the teacher),

Alaska Department of Education
MANPOWER SURVEY PROJECT USOE/BEH
LEASCO Systems & Research Project

1. Teacher _____
2. School Name _____
3. School District _____

4. Student's Name	5. Date of Birth	6. Parent or Guardian	7. City or Village	8.	9. Status Grd.	9. Status Un.	10.	11.	12.	13.	14.	15.	16.	17.
											A 0 1 2	A 1 2		
											B 1 2	B		
											C 1 2 3	C 1 2 3		
											D 1 2 3 4	D		

(REPRODUCED FROM STATE FORM)

FIGURE 2. "FORM A", SPECIAL EDUCATION DATA COLLECTION SHEET

the reporting of waiting list data would not be practical. If children from these areas were to be assigned to state-operated schools or any other schools within the state, and had to wait for enrollment, it is assumed that he would be included on the waiting list of that facility.

Number of Children Moving Into/Out of Identified Handicapping Child Population

The rate of transience of children into and out of the handicapped child population is important to the determination of the amount of services that should be made available. Number of newly diagnosed annually, intra-state transfers and attritions are data elements which must be considered if the handicapped child population is to be reliable.

Newly Diagnosed. The Guidelines of Programs of Special Education in Alaska mention the use of national prevalence rates as a means of estimating the handicapped child population. Using prevalence rates is an interim method of estimating the total handicapped child population. These rates are a starting point for such an estimation, but to be useful in the long run, not only for applying the model but for other state planning purposes, they should be validated with actual data. Such validation can be accomplished by collecting approximation data and improving it annually.

The purpose of obtaining information pertaining to children newly diagnosed in a year is to obtain some information that can be used to validate annual incidence rates. Where diagnosis and identification are limited to a capability to serve, a count of new enrollments in special education programs is equivalent to a count of the newly diagnosed. However, this is a minimal condition and provision should be made for collecting newly diagnosed data pending the time when diagnosis is less restricted by service capability, funds, or availability of qualified personnel.

The source of information for the newly diagnosed data elements (age and handicapping condition) is already established for the borough/district schools. The Form 550, Referral For Special Education, (Figure 3), which these schools submit to the State Department of Education (Special Education Consultants Office) contains the required information. However, to assemble state-wide information, the state-operated schools, BIA, and other state institutions should report similar age and handicapping condition totals to Special Education. If the same cooperative attitude prevails as existed for "Form A" initiation, no form should be necessary as long as the procedure is established.

Intra-State Transfers. In some states the intra-state transfer of children from one local education district to another can amount to an appreciable transience. Unless proper reporting precautions were taken, these children would be double-counted in the handicapped child population. In Alaska, however, this potential source of data inaccuracy is probably negligible and a procedure to trace such transfers would probably not be practical.

STATE OF ALASKA
DEPARTMENT OF EDUCATION
POUCH F, ALAKSA OFFICE BUILDING
JUNEAU, ALASKA 99801

REFERRAL FOR SPECIAL EDUCATION

School or School District

Student's Name _____ Sex ___M ___F

Birthdate _____ _____

School District _____ _____

School _____ ade Level ____

Application Submitted By:

_____ _

_____ _____

____ _____

Date: _ _____

(REPRODUCED FROM STATE FORM)

Check Handicap Designation

___ Educable Mentally Retarded
___ Trainable Mentally Retarded
___ Deaf/ Hard of Hearing
___ Blind/ Sight Impaired
___ Speech Impaired
___ Emotionally Disturbed
___ Orth. Handicapped
___ Neurol. Handicapped
___ Specific Learning Disability
___ Other _____

I. Reports (Check if attached)

A. Psychological Test Results (with interpretation and discussion) ____
B. Nurse's Home Visit (or social worker's when possible) ____
C. Teacher Evaluation and Anecdotal Records ____
D. Physician or Pediatrician's Report (if required) ____
E. Speech and Hearing Evaluation (if required) ____
F. Psychiatric Evaluation (if required) ____
G. Neurological Evaluation (if required) ____

Parents

II. Parental Approval:

As parents or guardians we have been informed about and concur with the special education evaluation noted above, and agree to placement of our child in a designated special education program if this application is approved by the State Department of Education.

Signature(s) _____ Date _____

State Dept. of Educ.

III. Approved ____ Disapproved ____ Date _____

Signed _____
Consultant, Special Education

Comments: _____

_____

_____

_____

Student's Name

School year:

Make in triplicate. Return two copies to Juneau DOE, retain one.

Form 550 (revised 6/68)

FIGURE 3. FORM 550, REFERRAL FOR SPECIAL EDUCATION

Attritions. Attritions from the special education programs constitute the deductions from the handicapping child population. This data element, which is not currently collected, could be included in a modification of "Form A" as shown in Figure 4, column 20 (case disposition code). By assigning codes to reasons for attrition, Special Education could accumulate data for the analyses of attrition causes as well as have the data available for model input.

General Child Population Projections

The projections of general child populations by individual year and single year of age for the period of time for which forward projections will want to be made, is a model data element requirement. These are the values that will be applied to validated incidence rates to determine the forward projection of the handicapped child population. The availability of such projections was not known to the Special Education staff and could not be traced during the interview period. It was thought, however, that the Department of Administration might be able to prepare this information.

Data Used to Simulate Special Education Requirements

The Manpower Requirements Projection Model has the capability of simulating manpower requirements based upon selected variations of input data. Two such data elements are education program mix trends and personnel/pupil contact ratios. A simulated change in education program mix (for example, returning blind and deaf children to regular classes supplemented by resource room work instead of special full-time classes) can be analyzed for its effect on manpower requirements. A proposed change in teaching technology that could affect the teacher/pupil contact ratio can be simulated to determine its effect on manpower requirements.

Education Program Mix Trends. Alaska is a young state and many of its state programs are still in the formative stage. They, therefore, do not have much depth in terms of historical records or past performance against which to draw trend comparisons. With the information now being accumulated, they will have the basis for future analytical efforts pertaining to enrollment and education program mix trends by handicap condition and educational program mix.

Personnel/Pupil Contact Ratios. There is only one personnel/pupil contact ratio established by Alaskan school laws. That ratio, one teacher to each 10 pupils or a major fraction thereof, applies to all categories of the handicapped, with no refinements made for educational leve, educational program, or handicapping condition.

Number And Type of Special Educators Employed

The determination of the special education manpower gap (the difference between projected requirements and present staff) requires an identification of the number of special education teachers by type of handicap

ALASKA DEPARTMENT OF EDUCATION

SPECIAL EDUCATION ENROLLMENT

1. SCHOOL NAME
2. SCHOOL DISTRICT
3. TEACHER

4. TEACHER TRAINING AND CERTIFICATION: A B C D E F
5. TEACHER AIDE: (A) 0 1 2 (B) 1 2 (C) 1 2 3 (D) 1 2 3 4
6. SPEECH THERAPIST: (A) 1 2 (B) / (C) 1 2 3 (D) %

7. STUDENT'S NAME	8. DATE OF BIRTH	9. PARENT OR GUARDIAN	10. CITY OR VILLAGE	11. (ETHNIC GROUP CODE)	12. STATUS GRD.	12. STATUS UN.	13. (DEFINED HANDICAP CONDITION CODE)	14. (UNDEFINED HANDICAP CONDITION CODE)	15 (MAJOR HANDICAP CONDITION CODE)	16. (SPECIAL EDUCATION PROGRAM CODE)	17. (DIAGNOSED, REFERRED, ETC. STATUS CODE)	18. DATE ADMITTED	19. DATE RELEASED	20. (CASE DISPOSITION CODE)
1.														
2.														
3.														
4.														
5.														
6.														
7.														
8.														
9.														
10.														
11.														
12.														

FIGURE 4. "FORM A" MODIFIED

condition and education level taught. In Alaska, the occupation "Teacher of Exceptional Children" applies to all certified personnel who are authorized to educate handicapped children. There is no further occupational breakdown to identify personnel by specific handicap area skills, for example, teacher of the blind, teacher of the mentally retarded, etc. This occupational breakdown could be derived from an additional modification to "Form A". In item 3A (of header section) are a series of alphabetical codes that could stand for special handicap area skills, for example:

Code A	Mentally Retarded
Code B	Emotionally Disturbed
Code C	Speech Handicapped
Code D	Deaf and Hard of Hearing
etc.	

Special Education could then obtain a total teacher skills inventory, assuming that state-operated schools, state hospitals and institutions, and BIA reported similar data for their staffs.

V. PROCESSING POTENTIAL

The state level department which is responsible for providing the Department of Education, and thus, Special Education, with automated data processing (ADP) support, is the Department of Administration. Currently, this function provides no services to Special Education, primarily because none have been requested. However, present plans call for the keypunching of data that will be derived from the information flow, and the computer preparation of output reports.

Hardware

The Department of Administration has an IBM 360-40 of sufficient storage capacity to process the Manpower Requirements Projection Model (32K word storage required). Although the data processing center is COBOL oriented, they do have FORTRAN capability. Other ancillary equipment including keypunchers, sorters, and printer, are capable of providing the required facility support.

Personnel

The Special Education Consultant staff is capable of the preparation of simulated inputs and the analysis of results. They may however, need some support from the Department of Administration for statistical analysis, and input data and output report formating. Personnel to prepare data for input (keypunching) and operate the equipment are available at the computer center.

Attitude

The concept and potential advantages of the Manpower Requirements Projection Model were understood and appreciated by the Special Education Consultants, Messrs. Earl Andersen and Don Brunner. They were most anxious to incorporate the use of the model techniques in the preparation of their forward planning. Also, because of the inadequate information currently available, they wished to use the data elements as a basis for developing an information flow for the normal administration and management of their functions. It is recognized that a reliable information flow takes time to develop, but the immediate implementation of "Form A" is indicative of the desire to begin building the data capability to administer special education programs and utilize the planning potential of the model.

VI. ADDITIONAL FACTORS

Special education programs in Alaska encounter problems which are unique to the characteristics of the state. It has few population concentrations, many small communities and villages spread over a large geographical area, language differences in the Indian and Eskimo ethnic groups, and climatic conditions not conducive to attracting qualified professional people from the "lower 48". The capability to provide special education services in rural areas is, in many instances, limited to some instructional assistance to the regular classroom teacher, who because of a lack of any other feasible special education facility, has handicapped children included in the regular class. These conditions are, of course, recognized by Alaskan officials and their problems are further compounded by the anticipation that the state will experience a population explosion because of the oil activity. On the plus side is the fact that the state is young and is not as encumbered with antiquated legislation, procedures, customs, and organizations as are some of the other states.

VII. RECOMMENDATIONS

The development of an information flow pertaining to the handicapped child population in Alaska involves more than the determination of data element sources and the prescription of a flow path. The concept of a centralized data base, in which data would be provided in a compatible format so that it can be accumulated and processed for output in a format convenient to the user, must first be accepted by those who would benefit most by its availavility. Those beneficiaries would be the supervisors and specialists in various state agencies, and perhaps the legislature, who would be able to obtain consolidated and coordinated data pertaining to either specific or summarized handicap education areas.

The Alaska agencies serving the handicapped child population have a current need for coordinated special education information. In the future, as the number of children served increases and the services available to them are expanded, the requirement will become even more essential to the efficient administration of the state's handicapped child education programs. When the need for information becomes critical, is not time to initiate the steps necessary to obtain it. This is a prime reason for initiating the development of information reporting procedures as soon as possible.

Recommendations critical to the implementation of the Manpower Requirements Projection Model are stated in the following paragraphs. Many of these same recommendations are critical also to the implementation of an effective information base.

a. Present plans call for keypunching and producing computer prepared output reports based upon data collected on "Form A". This would make possible the summarization of the data elements from the "Form A" reports submitted by the many individual classrooms.

   The first specific recommendation is that "Form A" be modified as illustrated in Figure 4. This modified format consolidates teacher data in one area and pupil data in another, provides the vehicle for collecting additional teacher occupation data, admission and release dates, and attrition data.

b. In order to ease the data preparation load on the teacher, it is suggested that the content of "Modified Form A" be contained in a computer prepared report (multiple copies) and a copy of this report be recycled to the classroom teacher. This printout could then be updated by the classroom teacher and re-submitted as the next year's enrollment report.

   There are several benefits to be gained from such a procedure; (1) the recycled sheet is a reminder vehicle that the annual enrollment report is due, (2) annual preparation of enrollment reports would be less of an administrative chore for teachers; there would be no need to re-enter data that is unchanged from the previous year, but only to update the information. This update could be recorded directly on the computer printout and sent back to Special Education, (3) the printout

would provide continuity of information from one year to the next. This is particularly useful when recording attrition data.

Update entries would include:

- Teacher changes
- New enrollments in the class
- Case disposition entries (column 20 of the "Modified Form A", Figure 4).

Each pupil's name would require some "Case Disposition" entry to indicate whether the child is a new enrollment, continued from previous year, or an attrition. Some suggested case disposition codes are listed in Table 2. The computer program would automatically delete the names of children who had attrited the previous year from the next year's printout.

c. A further recommendation pertaining to the use of "Modified Form A" concerns the collection of waiting list data. Waiting list data should be separated from enrollment data. Not only is the status of the children different, but the data source is also different. The classroom teacher is the data source for enrollments. The local education agency (LEA) is the source of waiting list data. A separate "Modified Form A" (or a format very similar) containing only the names of children awaiting enrollment in special education services should be prepared by the LEA and submitted in the same way as the enrollment report. The Column 17 status codes should be expanded to include codes for admission to special education classes or other causes which will result in removal from the waiting list. This form could be recycled to the LEA and updated in much the same manner as with enrollments.

d. The determination of the unserved child population is dependent upon the application of current prevalence rates. Although the use of unvalidated prevalence rates (especially those of national or obsolete origin) is a convenient means of "guesstimating" the theoretical service requirements,

TABLE 2

CASE DISPOSITION CODES

ENROLLMENT	
New enrollment (first time in program)	E1
Transfer from another class	E2
Continuing in program from previous year	C
ATTRITION	
Pupil returned to regular education procedures	A1
Transfer to another class	A2
Mortality	A3
Left special education program for other reasons (dropout, graduation, moved out of state, etc.)	A4
(The state may want to list additional causes for attrition to permit a more detailed analysis)	

even the "ball park" accuracy is questionable. The prevalence rates currently used in Alaska should be reviewed in the light of current knowledge; and procedures should be initiated for validating prevalence rates.

e. The present capability to assemble data on Newly Diagnosed, through the use of Form 550, should be expanded to include the reporting of Newly Diagnosed totals by handicapping condition and age from BIA, the state-operated schools and other state agencies having an educational involvement with handicapped children.

f. If a general child population projection by calendar year and single year of age is not currently available, such information should be developed. This is particularly critical in Alaska because of the anticipated population explosion. The Department of Administration may have the data available upon which to base such projections.

g. The model has the capability to project manpower requirements by specific occupational categories. However, with the present broad "Teacher of Exceptional Children" category, a projection based upon this one occupation will not be of much assistance. It is recommended that the "Modified Form A" be used to obtain a tally of present special education teaching personnel by more detailed special education skills.

VIII. RESOURCE REQUIREMENTS—MANPOWER

The Special Education staff, at the time of the survey staff visit, was understaffed even for the fullfillment of its existing functions. Capability to design an information flow system, determine data sources, design input forms, prepare input data, program ADP applications, and design output formats will have to be obtained from a source outside of the Special Education Consultant Office. The Department of Administration in its computer center, has this capability.

It is esimated that the implementation phase for a data information system to support Manpower Requirements Projection Model data needs will require approximately 2 man-months of special education staff effort, $1\frac{1}{2}$ man-months of system analysis time, and 1 man-month for programming. Maintenance

of the system (coordination of inputs, quality control, improvements, preparation of special report specifications, report recycling) will probably require $1\frac{1}{2}$ man-months of combined effort per year.

IX. PERSONS INTERVIEWED

The persons interviewed by the ORI (Leasco) representative, Mr. Carl Koch, during the week of September 15, 1969 were:

Earl B. Andersen	Consultant, Special Education
Keith Anderson	Coordinator of Planning and Research
Donald Brunner	Consultant, Special Education
Jack Carruthers	Assistant Coordinator of Planning and Research
Earline Smith	Consultant, Bureau of Indian Affairs, Special Education
Gerald Ousterholt	Assistant Chief of Social Services, Bureau of Indian Affairs
Ron Bedard	Media Consultant
Michael Wheeler	Data Processing
Michael Loughlin	EDP Programmer 4

X. ADDITIONAL CURRENT REPORT FORMATS

In addition to those report formats included in the test of this report, the following document is also pertinent:

Instructions for Completion of "Form A"

INSTRUCTIONS FOR COMPLETION OF "FORM A"

ALASKA MANPOWER SURVEY PROJECT USOE/BEH

(LEASCO Systems and Research Corp. Project)

This form is directed to:

1) Teachers assigned to special education classrooms full or part time K-12.
2) Administrators and teachers dealing with regular classrooms that contain special education candidates K-12.

DIRECTIONS

General information: (To be completed by all recipients.)

(REPRODUCED FROM STATE FORM)

1) Name of teacher completing form
2) Name of school
3) School district name
4) Name of student - last name firs'
5) Date of birth
6) Parent or guardian's full name
7) City or village
8) Ethnic group classification (circle appropriate letter)
   a. White
   b. Eskimo
   c. Indian
   d. Black
   e. Other (indicate)
9) Grade or ungraded

Enter under Column 10 one or more letters listed below to accurately describe the student's handicapping condition(s).

10) Criterion for handicapping conditions as defined by Alaska statutes are:
    a. Blind - 20/200 or less in better eye with correction.
    b. Partially sighted - 20/70 or 20/100 in better eye with correction.
    c. Mentally retarded -
       educable - I.Q. below 80, above 50 on psychological testing
       trainable -I.Q. below 55, above 30 on psychological testing
    d. Deaf - hearing below 65 decibels on audiometric testing without correction.
    e. Hard of hearing - 40 to 65 decibels on audiometric testing without correction.
    f. Orthopedic condition - bone or joint conditions limiting regular classroom attendance.
    g. Neurological impairment - disorders of nervous system.
    h. Emotionally disturbed - maladaptive behaviours rendering child incapable of meeting regular classroom attendance.

11) Write in the letter which identifies the appropriate condition noted below: (Handicapping condition not defined in Item 10 above.)
    i. Slow learner
    j. Academic/social retardation
    k. Speech handicaps
    l. Other health impairments
    m. Other (explain on reverse side of page).

12) Write in the letter of the category (see items a - m, columns 10 and 11) that you believe to be the child's major handicap.

13) Identify type of special education program in which child is enrolled.
Write in appropriate letter.

a. Classroom for a single handicapping condition
(Ex. hard-of-hearing)
b. Classroom incorporating multiple handicapping conditions
c. Special education itinerant teacher
d. Part-time special education/part-time regular classroom
e. Other (explain)

14) Teacher Aide information:
Indicate response by circling appropriate number under each letter heading.

a. Teacher aides assigned to your classroom - 0 1 2
b. Time in the classroom - (1) half-time (2) full-time
c. Training - (1) completed (2) untrained (3) in training
d. Training - (1) Dept. of Labor (2) AMU (3) on-the-job
(4) Other (explain)

15) Speech therapist information:
Circle or enter appropriate response a - d below.

a. Used in program - (1) yes (2) no
b. Fill in therapist/pupil ratio
c. Schedule - (1) regular (2) intermittent (3) itinerant
d. Fill in % of time spent in Special Education program.

16) Training and certification:
Write in appropriate letter response.

a. Less than six (6) units in special education
b. Six (6) units in special education
c. More than six (6) units in special education
d. Master's degree in special education;
certification, State of Alaska
e. Certification, special education, State of Alaska
f. Provisional certificate

17) Please give careful thought to items a - f below. This data is a basis for Alaska special education manpower needs projections.

This child: (enter appropriate letter under column 17).

a. is enrolled in special education but has, as yet, not been fully evaluated.

b. has been diagnosed as needing special education and is in a regular classroom waiting special education placement.

c. has been diagnosed as needing special education, but is not in school.

d. has been referred and waiting for diagnosis.

e. has not been medically or psychologically evaluated for special education but is believed to need special education.

f. has a high probability of being diagnosed as needing special education.

TABLE 1
SUMMARY OF DATA DEVELOPMENT STATUS
ALASKA

DATA ELEMENTS			BOROUGH/DISTRICT SCHOOLS			STATE-OPERATED SCHOOLS AND BIA		
			CURRENT STATUS	METHOD OF DEVELOPMENT	SOURCE OF DATA	CURRENT STATUS	METHOD OF DEVELOPMENT	SOURCE OF DATA
NUMBER OF CHILDREN IDENTIFIED AS NEEDING SPECIAL EDUCATION	ENROLLED	AGE HANDICAPPING CONDITION EDUCATION PROGRAM	Available from "Form A"	Recycle computer prepared report based upon "Modified Form A" initial data	Classroom teacher	Available from "Form A"	Recycle computer prepared report based upon "Modified Form A" initial data	Classroom teacher (BIA or state-operated schools)
	ON WAITING LIST	AGE HANDICAPPING CONDITION	In process of development	Form similar to "Modified Form A" using the same procedures	LEA	In process of development	Form similar to "Modified Form A" using the same procedures	BIA or individual state-operated schools
NUMBER OF CHILDREN MOVING INTO AND OUT OF IDENTIFIED HANDICAPPED CHILD POPULATION	NEWLY DIAGNOSED AS NEEDING SPECIAL EDUCATION	AGE HANDICAPPING CONDITION	Available, but needs aggregation	Extract data from Form 550	School or school district	Not reported to Special Education Office	Report totals by age and handicapping condition	
	INTRA-STATE TRANSFERS	AGE HANDICAPPING CONDITION						
	ATTRITION FROM THE IDENTIFIED HANDICAPPED POPULATION	AGE HANDICAPPING CONDITION REASON	Not available	Use "Modified Form A" procedures	Classroom teacher	Not available	Use "Modified Form A" procedures	Classroom teacher (BIA or state-operated schools)
YEARLY PROJECTIONS OF THE CHILD POPULATION, BY AGE			Not available	Statistical analysis	Department of Administration			
DATA USED TO SIMULATE SPECIAL EDUCATION	EDUCATION PROGRAM MIX TRENDS		Not available	Data analysis	State school laws			
	TYPES OF PERSONNEL AND PERSONNEL/PUPIL CONTACT RATIOS	TARGET GROUP EDUCATION PROGRAM	One ratio for all handicap conditions and programs	Not applicable	Classroom teacher	One ratio for all handicap conditions and programs	Not applicable	State school law for state-operated schools
OPTIONAL: NUMBER OF SPECIAL EDUCATION PERSONNEL EMPLOYED, BY TYPE			Not refined by occupational categories	Entry on "Modified Form A"		Not refined by occupational category	Entry on "Modified Form A"	Classroom teacher

ARIZONA STATE ANALYSIS REPORT

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The research reported herein was performed pursuant to Contract No. OEC 0-9-08928-0710 with the Bureau of Education for the Handicapped, Office of Education, U.S. Department of Health, Education, and Welfare. Contractors undertaking such projects under Government sponsorship are encouraged to express freely their professional judgment in the conduct of the project. The points of view or opinions stated do not, therefore, necessarily represent official Bureau position or policy.

ARIZONA STATE ANALYSIS REPORT

I. INTRODUCTION

Sponsored by the Bureau of Education for the Handicapped (BEH), Operations Research, Inc. (ORI) has developed a mathematical model that provides the framework for systematic consideration and evaluation of major elements contributing to the determination of special education manpower needs. The model has been designed for application by state special education agencies and, when fully implemented, will assist each state in the systematic prediction of its own special education manpower needs, based upon individual state educational characteristics. The model will simulate present and future manpower needs under varying assumptions regarding changes in personnel/pupil ratios, the educational program mixes, the child participation rate, or any combination of these variables.

Following development of the model, a visit was made to each of the 50 state special education agencies in order to familiarize the states with the objectives of the program and to conduct a survey of current state information flow procedures. The purpose of the survey was to review and analyze the capability and potential for utilization of this model by the state agencies responsible for the education of handicapped children. The survey included an analysis of:

a. The capability of existing information flow processes to provide the necessary model input data

b. The existing automatic data processing capability to process the model program

c. The special education staff capability and desire to utilize the model.

This report presents the findings of the survey in the State of Arizona, and contains recommendations pertaining to the establishment of information flow procedures for model utilization as well as to the improvement of general information availability for special education program management. The data development status is summarized in Table 1 at the end of this report.

II. SUMMARY

Education of handicapped children in Arizona is accomplished through a number of state agencies and private schools. As a result, there is some overlapping and sharing of educational responsibilities. The resolution of the complexities of providing services because of this diversification is unofficially assisted by an unofficial Interagency Council of Mental Retardation.

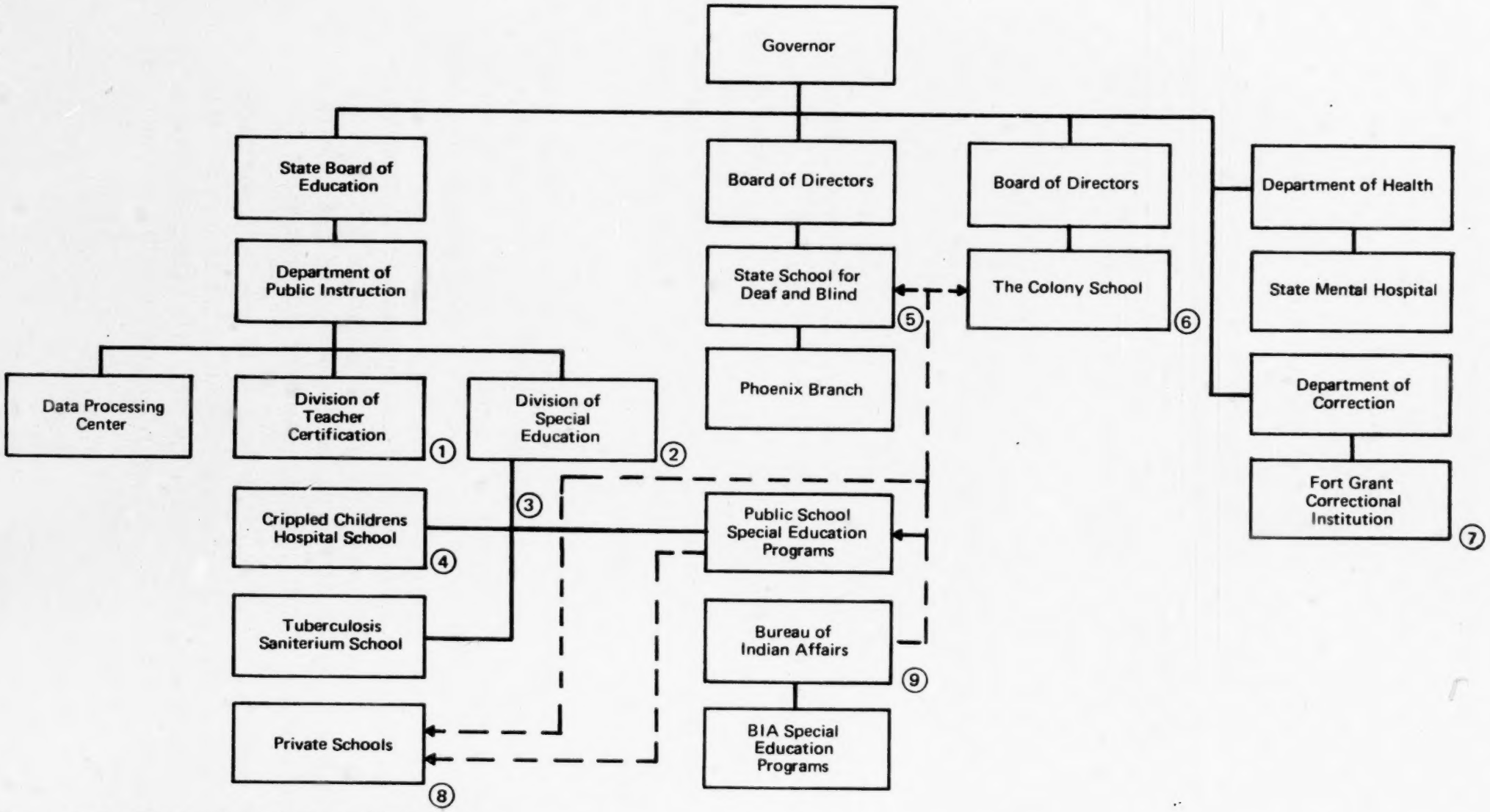
The private special education schools have an important position in Arizona. They provide a means of obtaining services for children that, because of state budgetary restrictions, could not always be obtained from public school programs.

There is currently no unified information flow between agencies. However, a good information flow, containing many of the required data elements, does exist from local or institutional levels to state agencies. With the recommended modifications to existing formats, and an extension of these reporting procedures to other state agencies and private schools an information flow capable of providing valuable handicapped child education data is feasible. The proposed information system should result in successive improvements in the completeness and the accuracy of the data elements over time, with validity being achieved within a few annual data cycles.

The Division of Special Education will need technical assistance, however, if an information flow, as described in this report, is to be implemented. Unless this aid is provided there is little chance of successful implementation.

III. RESPONSIBILITIES FOR SPECIAL EDUCATION

The relationship of the various agencies that participate in the education of handicapped children in Arizona is informally presented in Figure 1. This diagram shows only those agencies which have some responsibility for handicapped child education and is not intended to include all of the many other functions which each agency performs.



Notes

1. Certifies all teachers including special education.
2. Responsible for special education program approval in public school system, and in private schools receiving public funds.
3. Administrative responsibility only. Funding is from direct state grants.
4. Children who are confined to Crippled Children's Hospital.
5. Residential School for Blind and Deaf not receiving education from public school system.
6. Residential school for E.M.R. and T.M.R., preschool through post school. Children come from areas where no special education programs exist. No teacher certification criteria.
7. Juvenile delinquents, currently receiving no special education services.
8. Provide services by contract with local districts for mentally retarded, emotionally disturbed and physically handicapped children.
9. Responsible for education for Indian population. Also sends children to private and state agencies.

FIGURE 1. RESPONSIBILITY FOR EDUCATION OF HANDICAPPED CHILDREN IN ARIZONA

The responsibility for the education of the handicapped child in Arizona is highly diversified. It is split up among various state agencies each having a claim on a portion of the responsibility and in many cases there is an overlap. In addition there is active private school participation in the handicapped child educational area.

The Department of Public Instruction has the major responsibility, in terms of numbers served, for education in the state. It oversees the operation of the public school system including the certification of teachers. Within the public school system the responsibility for the educational programs for the handicapped child falls to the Division of Special Education. This division is responsible for curricular and financial approval of those programs in the public schools and the curricular and facilities approval in private schools receiving contract funds from the local districts.

Special education within the public school system is conducted by the local school districts. They determine the services that they will provide, and establish the programs, subject to approval by the Division of Special Education. The local districts receive reimbursement for approved programs from the Department of Education based upon the average daily attendance. The rate of reimbursement varies with the handicapping condition served. There is no legislation which compels a local district to create a special education program. For this reason other sources for special education are in existance.

The Division of Special Education also has administrative responsibility for the Crippled Children's Hospital School and for the Tuberculosis Sanitarium School. The former school serves children who have been admitted to Crippled Children's Hospital. The latter school provides education to those children who are confined because of a tubercular condition.

There are no established programs for the deaf and blind under the cognizance of the Division of Special Education. These handicapping conditions are served by the Arizona State School for the Blind and Deaf, which is a single institution controlled by a board of directors that is responsible to the governor. This school, and its Phoenix Branch, provides almost the total educational capability for the blind and deaf in the state. There are several programs in some of the larger school districts but these receive no state sponsorship. Some reimbursement can be provided by the state school to local districts for itinerant teachers. Partially sighted and hard of hearing children who do not qualify as blind or deaf receive no special education reimbursement from the state.

Another state operated facility, which reports to the governor through its board of directors, is the Children's Colony School. This is a residential school serving both the educable and the trainable mentally retarded, from preschool age through post school age. The school does not come under the jurisdiction of the Department of Public Instruction.

The Department of Health operates the State Mental Hospital in which there are approximately 40 to 50 children. The children assigned to this hospital are emotionally disturbed and mentally retarded. As of the time of the survey, the mentally retarded were receiving no special education services.

The Department of Corrections operates the Fort Grant Correctional Institution, which is for juvenile delinquents. However no special education programs, as normally defined, are being conducted at the institution.

A unique legislative limitation gives emphasis to the position of private schools in Arizona. A six percent budget limitation on the public school special education programs restricts growth of those programs. However, children can be sent to private schools and the public assistance provided is not subject to this budgetary limitation. This arrangement fosters the use of private schools for the training of handicapped children. Therefore the private schools attain a level of significance in Arizona special education which exceeds that of private schools in many other states.

Another dimension to the complex handicapped child education in this state is the largest Indian population of any state in the United States. The Bureau of Indian Affairs, a Federal agency, has the educational responsibility for these children. Mr. E.L. Turner, Jr., Chief Administrative Officer, Indian Education Division, states that the known handicapped children among the Indian population are sent either to state or private special education agencies. There are, however, some special education activities being conducted within the agency.

In summary, the special education diversification within the state is well recognized by handicapped child educators as creating a problem in the administration of special education programs. This complexity has a direct bearing on the creation of an overall handicapped child information flow within the state because of the many data sources which must be considered.

IV. DATA ELEMENT EVALUATION

Some specific data elements are necessary to the use of the Manpower Requirements Projection Model. The information which these data elements provide may also be very useful to the Division of Special Education for other operational analyses. Those data elements and their potential sources are discussed in the following paragraphs.

Number of Children Identified As Needing Special Education

There are two categories of information pertinent to the identified handicapped child population; those enrolled in special education programs, and those diagnosed as needing special education services and waiting to be enrolled.

Enrolled. Data on children enrolled in special classes are reported to the Division of Special Education of Form SE-8, Report of Enrollment in Special Classes (Figure 2). This form is completed by the classroom teacher and is submitted by October 15 of each year. From this form can be obtained the necessary basic enrollment data elements—individual age, handicapping condition (diagnosis column), and education program (type of class). Another form, SE-9, Report of Enrollment or Discharge (Figure 3) is used to update the October 15 enrollment report. This update procedure occurs every two months. Neither form provides a means for summarizing the age data and a suggestion for a forms modification that will accomplish this, and other data element requirements is made later in this section of the report.

No formal data reporting mechanism exists between the Division of Special Education and the other state and private agencies. However, during the data gathering phase of the survey visit much of the required information was obtainable via telephone call. This indicated that the information was readily available at the institutional or individual private school level. With the cooperation of these agencies the potential for the systematic reporting, for model purposes, appears to be good; perhaps a modification of the SE-8 Form could be used for this purpose.

Waiting List. The previously mentioned six percent budgetary limitation, together with the autonomy of the local school districts, leaves the identification of handicapped children dependent upon the capability of a district to service the child. Waiting lists of children diagnosed as requiring special education services, if they exist, are not forwarded to the Division of Special Education. Private agencies and state institutions probably do have waiting lists, but their accuracy for model purposes may be suspect, because some of the children on those waiting lists may very possibly be receiving some special education services within the local district, which would result in a duplication of count.

The determination of the amount of special education services required for the total Arizona handicapped child population obviously cannot be determined by summing the enrollments and the current waiting list data. In lieu of any better current guidelines Arizona utilizes national prevalence rates to estimate its potential total service requirements.

Using prevalence rates is, at best, an interim method of estimating the total handicapped child population. These rates are a starting point for such an estimation, but to be useful in the long run, not only for applying the model but for other state planning purposes, they should be validated with actual data. Such validation can be done by collecting appropriate data and making successive approximations. Later documents pertaining to this project will contain more detailed descriptions of alternative methods of validating these rates.

SE-8
Department of Public Instruction
W. P. Shofstall - Superintendent
Floyd L. Baribeau, Director
DIVISION OF SPECIAL EDUCATION

REPORT OF ENROLLMENT IN
SPECIAL CLASSES

(Submit October 15)

TYPE OF CLASS_____
SCHOOL DISTRICT_____
NAME OF SCHOOL_____
NAME OF TEACHER_____
SCHOOL YEAR_____

SUBMIT IN DUPLICATE

(Enrollees after this date reported on Form SE-9)

Name of Child (Alphabetize by class) (Star if non-resident)	District of Residence	Date of Birth	C.A.	I.C.	Tested By	Diagnosis	% Time in Special Class
1.							
2.							
3.							
4.							
5.							
6.							
7.							
8.							
9.							
10.							
11.							
12.							
13.							
14.							

FIGURE 2. REPORT OF ENROLLMENT IN SPECIAL CLASSES ARIZONA

SE-9 Submit one (1) copy on:
November 15 March 15
January 15 May 15

Department of Public Instruction
W.P. Shofstall - Superintendent
Floyd L. Baribeau, Director
DIVISION OF SPECIAL EDUCATION

REPORT OF ENROLLMENT OR DISCHARGE

IN

_____
TYPE OF CLASS

School District _____

Address _____

School Year _____

Date of Report _____

NAME OF CHILD (Alphabetize and Star if non-resident)	DATE OF Enrollment	DATE OF Discharge	Date of Birth	C.A.	I.Q.	Tested by	School Dist. of Residence	% Of Time in Special Class
1.								
2.								
3.								
4.								
5.								
6.								
7.								
8.								
9.								
10.								
11.								
12.								
13.								

(REPRODUCED FROM STATE FORM)

FIGURE 3. REPORT OF ENROLLMENT OR DISCHARGE, ARIZONA

Number of Children Moving Into/Out Of Identified Handicapped Child Population

The movement of children within the handicapped child population needs to be traced to determine the effects of annual incidence, transfer and attrition on the service required.

Newly Diagnosed. The purpose of obtaining information pertaining to children newly diagnosed in a year is to develop some information on the annual incidence rates. Where diagnosis and identification are limited to capability to serve, a count of new enrollments in special education programs is the equivalent to a count of the newly diagnosed. However, this is a minimal condition and provision should be made for collecting newly diagnosed data pending the time when diagnosis is less restricted by service capability, funds, or availability of qualified personnel. Since the local education agency (LEA) is the focal point for identification of handicapped children, this is the logical place to accumulate data for the development of lists of newly diagnosed children and those waiting for special education service. The data can be aggregated at the LEA and reported on a format similar to that shown in Figure 4.

Intra-state Transfers. Transfers within the state of children receiving special education services, while they do not change the state's total handicapped child population, should be accounted for separately. This will prevent a transfer from one LEA from being counted as a new enrollee in another LEA, thus creating an error in annual incidence count. The format for accounting for those transfers is included in the following paragraphs on "Attritions". An analysis of transfers could also reveal the trend of movement according to the quality of special education services offered by various localities.

Attritions. Attritions and intra-state transfers out of an LEA constitute the deductions from the handicap child population of an LEA. The reporting means for collecting attrition data, and also data on intra-state transfers and newly diagnosed (where diagnosis and enrollment are equivalent) already exists on Form SE-9 (Figure 3). By entering codes already in use in Arizona, data on enrollments, including new enrollments, transfers (re-entries), and attritions (withdrawals), are established.

A similar code column should be added to Form SE-8 (Figure 2) so that codes can also be applied to the first roll of the new school year.

If the data on these reports (Forms SE-8 and SE-9) were summarized on the form it would greatly facilitate the overall data processing procedures.

The sample formats, in Figures 5A and 5B illustrate a means of summarizing the data at the classroom level and making data aggregation at state level simpler. Figure 5A could be printed on the reverse side of Form SE-8. Figure 5B similarly applies to Form SE-9.

Report Date (fall of each year) LEA _____

Handicap Condition	N.D. = newly diagnosed W.L.T. = waiting list total	Age					
		1	2	3	4	5	. . . Etc.
Emotionally Disturbed	N.D.						
	W.L.T.						
Educable Mentally Retarded	N.D.						
	W.L.T.						
Trainable Mentally Retarded	N.D.						
	W.L.T.						
Etc.							

FIGURE 4. NEWLY DIAGNOSED AND WAITING LIST REPORTING FORMAT

Enrollment Code	Age								Total
	3	4	5	6		19	20	21	

FIGURE 5A, FORM SE-8 SUMMARY

Enrollment Attrition Code	Age								
	3	4	5			18	19	20	21

FIGURE 5B, FORM SE-9 SUMMARY

General Child Population Projections

The projections of general child populations for 10 years forward by individual year and by single year of age is a model data element requirement. These are the values that validated incidence rates will be applied to in the forward projection (0-10 years) of the handicapped child population. These projections are available from state population statistics.

Enrollment Trends

There exists within the Division of Special Education the historical records required to back up the analysis of enrollment trends by handicap condition and educational program mix. However, a specific analytical effort would have to be undertaken to statistically aggregate this information.

Personnel/Pupil Contact Ratios

Special education teachers are specially certified in this state. Specific curricular training, or its equivalent, must be accomplished for a teacher to obtain full certification to teach in a handicap field. There is a time restricted provision for temporary certification to permit the completion of courses prerequisite to full certification. State guidelines also prescribe, for public schools, maximum and minimum class sizes according to handicapping condition and, where applicable, by pupil age range and special education program. Actual trends in ratios can be determined from an analysis of the enrollment reported on Form SE-8.

Number and Type of Special Educators Employed

The determination of special education manpower gap (the difference between projected requirements and present staff) will require the aggregation of data obtainable from Form SE-12 "Report of Special Services Personnel" (see Section X, p. D3-22). This report identifies teachers for various handicapping conditions as well as clinicians, psychologists, and school social workers, reports their certification and level of class being taught. Much of this information is included in the annual "Special Education Directory."

V. PROCESSING POTENTIAL

The responsibility for providing the Division of Special Education with data processing support is assigned to another Department of Public Instruction subsidiary, the Data Processing Center. Currently this center provides no services to the Division of Special Education, because none have been requested and also because the present work load fully occupies the one shift staff. Staffing capacity seems to be a matter of funding, however, because another state agency outside of the Department of Public Instruction is funding some data bank efforts of the center.

Hardware

The computer equipment available at the center is the Remington 9300 and a 1095. There are four tape drives on the 9300 with a 16K memory. The 1095 has two tape drives. FORTRAN compiler capability is available as is a Univac scanner. Keypunching and sorting equipment is also available. The center's equipment is being utilized on a one shift basis because of staffing limitations. The Manpower Requirements Projection Model requires a 32K memory.

Personnel

The staff of the data processing center has the technical capability to support a special education information flow system and to utilize the model program. It consists of a manager, 3 programmers, 1 machine operator, 3 keypunch operators, 1 supervisor of controls and operations, and 1 control clerk.

In discussion with Elizabeth Brennan, Supervisor of Controls and Operations, (Mr. Farley, the manager, was unavailable at the time of the visit to the center), it was indicated that the center's support functions included guidance in forms design, data input preparation, output format preparation, and systems design. She also stated that the present work load precluded any additional assignments unless funds became available for staff additions.

Attitude

The Acting Director, Mr. Wendell Huff, Division of Special Education, was most desirous of improving the special education information flow processes in Arizona. He believed that it was essential to the efficient management of the Division's operations and that it would strengthen its capabilities to serve the local agencies. The benefits of the Manpower Requirements Projection Model, while desirable, seemed somewhat remote however, in view of the major problem of the diversification of special education in Arizona.

VI. ADDITIONAL FACTORS

The inter-agency involvement in handicapped child education, while contributing to the problems of information flow, reinforces the need for improved methods of accumulating and processing vital information. Those involved in the profession need rapid access to the information necessary to the performance of their function.

As previously mentioned, the decentralization of responsibilities for the education of handicapped children in Arizona is a major problem for those who must provide those services. The seriousness of the problem is underscored by the formation of a cooperative effort called the Interagency Council of Mental Retardation. Participants in this council, which currently does not have official stature, are representatives from the Division of

Special Education, other responsible state agencies and the private school sector. The purpose of the council is to jointly address community handicap education problems and find a way through the bureaucratic procedures to provide the needed services.

The cooperative objectives of this council may be the link that would encourage cross agency participation in a unified handicapped child information system that could provide the data element information required by the model.

VII. RECOMMENDATIONS

The development of an information flow pertaining to the handicapped child population in Arizona involves more than the determination of data element sources and the prescription of a flow path. The concept of a centralized data base, in which data would be provided in a compatible format so that it can be accumulated and processed for output in a format convenient to the user, must first be accepted by those who would benefit most by its availability. Those beneficiaries would be the supervisors and specialists in various state agencies, and perhaps the legislature, who would be able to obtain consolidated and coordinated data pertaining to either specific or summarized handicap education areas.

The Arizona agencies serving the handicapped child population have a current need for coordinated special education information. In the future, as the number of children served increases and the services available to them are expanded, the requirement will become even more essential to the efficient administration of the state's handicapped child education programs.

The development of a unified information flow that will encompass the total handicapped children services sphere will be a complex effort. A concentration on purpose and objective, and the complete and unrestricted cooperation of both intra-agency and inter-agency personnel involved will be required. It will need time, testing, and modification before it will be a fully responsive system. When the need for information becomes critical, is no time to initiate the steps necessary to obtain it. This is a prime reason for initiating the development of information reporting procedures as soon as possible.

The involvement of different state agencies in providing special education services, adds to the complexity of creating a unified information flow. For this reason it is recommended that the development of a special education flow system be accomplished in two phases.

The first phase is concerned with the Division of Special Education itself. A procedure should be developed within the agency that would provide for the consolidation of all information into one data bank. Individual specialists could then extract that information which is pertinent to their operations, and in addition, the Division could extract aggregated information which it requires to to plan and administer the overall operation. The second phase involves the incorporation of handicapped child information from other state agencies into one basic data bank.

Some of the steps critical to the implementation of the first phase are included in the following recommendations.

a. The Division does not currently have the skills and/or capacity within its present staff to do the necessary systems analysis, design coordination, and forms design. This capability must be provided to the Division, either through addition to the staff, through loan from another agency, or from consultant sources Automated data processing is advisable for efficient utilization of the data. Information existing on the original individually prepared input sheets is difficult, if not impossible, to sort, rearrange, extract and analyze.

   Computer programs should be designed that will record this data on magnetic tape and permit its extraction on computer produced reports. The Division staff would be expected to specify the output requirements for the printout, but programming capability should be provided by the computer support agency (possibly the Data Processing Center). The net effect on program supervisors and specialists will be that less time will be spent on the clerical effort of accumulating data and more time will be available for the professional aspects of their job.

b. The present capacity of the Data Processing Center's computer is not adequate to utilize the Manpower Requirements Projection Model. If this is the only computer support facility that is internally available to the Division of Special Education, it is recommended that a 32K storage capacity computer be rented for model utilization (it is estimated that the model would require less than one half hour of computer time per annual projection).

c. The forms modifications suggested in Section IV should be adopted or incorporated as follows:

   - Summarize enrollment data on forms prepared at the classroom level (SE-8 and SE-9). This will greatly facilitate data aggregation and keypunching at the state level.

d. A program should be initiated to evaluate the current prevalence rates, which are based upon national rates, and to validate them with actual data. This should be a continuing process which will produce better and more accurate results with each data cycle.

e. Encourage the diagnosis at the local level of candidates for special education services even though the capability to serve does not presently exist. Knowing the service backlog is an important element of forward planning. The form shown in Figure 4 could be used to report this essential data.

f. The Special Education Division should request that the state agency responsible for population statistics prepare a 10-year annual projection of the general child population by individual year of age. This projection should be updated annually.

g. A special education personnel data bank should be prepared. If this information were available on magnetic tape the Special Education Directory could be computer prepared and the data would be available for other necessary statistical purposes, including a count for the determination of the manpower gap between projected requirements and present manpower availability.

The second phase in the implementation of a total information reporting system involves coordination with, and the cooperation of, other state agencies involved in the education of handicapped children. It would probably be advisable to have the reporting system functioning within the Division of Special Education before enlisting the participation of other agencies. However, consideration of their potential data requirements when designing the reporting formats and the data bank record could facilitate their entry into the system when the appropriate time comes.

The object of other agencies participation in the reporting system is to make available data that will represent the entire handicapped child educational area in the state. This will make manpower projections more representative of the state's total requirements, and because of the availability of consolidated data, will be useful to both the legislature and agency administrators in planning the overall direction of state's effort. This does not mean that any one agency would be assuming the functions of another, because each agency would be able to extract from the data bank that information which is pertinent to its own operation.

It may be possible for other state agencies and private schools to use forms similar to those used for public school special education reporting. Obviously, the implementation of such a reporting system will require a considerable coordinating effort. Coordination at the commissioner and director levels will be necessary to resolve the policy variables between agencies, and cooperation at the supervisory level will be required to resolve the "nuts and bolts" problems (reporting formats and procedures, output report formats, priorities, etc.).

VIII. RESOURCE REQUIREMENTS—MANPOWER

The Special Education staff, at the time of the survey visit was understaffed even for the fulfillment of its existing functions. There was no staff capability to design an information flow system nor to perform the data element evaluation, data source determination, input forms design, input data preparation, programming, and output format design required for information system implementation. Such assistance would have to be either added to the staff or provided by a source outside the division. It is estimated that this implementation phase for a system internal to the Division of Special Education would require about 2 man-months of special education staff effort, 2 man-months of systems analyst time, and 1 man-month for programming, over a period of 18 to 24 months. If the division were to be centrally responsible for coordination of the state-wide system for all agencies an additional $\frac{1}{2}$ man-month of analyst effort and 1 man-week for programming over a period of 12 additional months would be required. The capability of the implementation personnel should also include the ability to analyze system requirements, organize and coordinate the effort of contributors, design formats, and prepare procedures and instructions.

Maintenance of the system (coordination of inputs, quality control, improvements, preparation of special report specifications, etc.) will probably require about 1 man-month of combined effort per year.

IX. PERSONS INTERVIEWED

The persons interviewed by the ORI (Leasco) representative, Mr. Carl Koch, during the week of November 10, 1969 were:

Wendell Huff	Acting Director, Division of Special Education
Mary Robinson*	Program Coordinator, Division of Special Education
Vivian Squires*	Field Consultant, Instructional Materials Center, Division of Special Education
T.K. Taylor*	Director of Mentally Retarded, Department of Health
Clayton Loronzen*	Director, Valley of the Sun School
Dr. Joseph Hubbard*	Children's Colony Board, Coordinator of Community Services
Thomas Rossettie*	Consultant to Interagency Council On Mental Retardation
Dr. Glenn Hamilton*	University of Arizona and Council for Exceptional Children
E.L. Turner, Jr.	Chief Administrative Officer, Indian Education Division, Department of Education
Wayne T. Pratt	Special Consultant, Indian Education Division, Bureau of Indian Affairs
Elizabeth Brennan	Supervisor of Controls and Operations, Data Processing Center, State Department of Public Instruction

* Members of Interagency Council of Mental Retardation

X. CURRENT REPORT FORMATS

In addition to those report formats included in the text of this report, the following Arizona reports formats are also pertinent,

SE-1 Annual Application for Approval Mentally Retarded-Educable

SE-12 Report of Special Services Personnel

SE-1
Department of
Public Instruction

Submit in duplicate.
One copy will
be returned.

ANNUAL APPLICATION FOR APPROVAL
MENTALLY RETARDED - EDUCABLE

Due:
May 15

_____
School District

_____
Address

Section 15-1019 provides that a local school district may make application for the education of handicapped children in special classes to the State Superintendent. This blank will serve as a guide and as an application under the provisions of this section.

ADMINISTRATION

Basis of selection of children (check)
Individual Intelligence Test _____ Age Grade Retardation _____
Group Intelligence Test _____ Group Achievement Test _____
What is your basic I. Q. range for these classes? _____
Who will be responsible for:
Individual Testing _____ _____
Supervision of Classes _____ _____
Transfer of pupils and parent con _____
Are all classes housed in regular buildings? _____ Exceptions _____
Are equipment and space avail-
Arts and Crafts _____ _____ Home Arts _____
Woodworking _____ _____ Physical Education _____
Are children include ar service of:
Library _____ _____ Art _____
Audio Visual _____ Physical Education _____
Music _____ Cafeteria _____
Number of hours in school day: Primary _____ Intermediate _____ Secondary _____
Lunch will be available: Yes ___ No ___ To selected children _____

(REPRODUCED FROM STATE FORM)

PERSONNEL

Name of Teacher	Percent of time Special Teaching	Certification	Salary July 1 - June 30

(use separate sheet if additional space is needed)

ESTIMATED NUMBER OF CHILDREN

	Resident Number Full Time	Resident Number Part Time	Number of Non-Resident
Primary Age (6-9)			
Intermediate Age (10-14)			
Secondary Age (15-up)			

Date _____ (Signed) _____
District Administrator

This plan approved by: _____
State Director of Special Education

Date _____

_____
State Superintendent of Public Instruction

Exceptions:

SE-12

STATE DEPARTMENT OF PUBLIC INSTRUCTION
Division of Special Education
State Capitol
Phoenix, Arizona 85007

DUE DATE:
October 1
SUBMIT ONE
COPY

REPORT OF SPECIAL SERVICES PERSONNEL

1. County _____ 2. Name of School District _____

3. Address of School District _____
(Complete mailing address including ZIP CODE)

4. Telephone Number _____ 5. Superintendent _____

6. Special Education Administrator (Include Title) _____

7. TEACHERS OF EDUCABLE MENTALLY RETARDED

NAME	SPECIAL EDUCATION CERTIFICATE NO. & EXPIRATION DATE	LEVEL OF CLASS (Primary, Intermediate, etc.)	LOCATION OF CLASS (Name of School)

(Attach list if additional space is needed)

(REPRODUCED FROM STATE FORM)

8. TEACHERS OF TRAINABLE MENTALLY RETARDED

NAME	SPECIAL EDUCATION CERTIFICATE NO. & EXPIRATION DATE	LEVEL OF CLASS (Primary, Intermediate, etc.)	LOCATION OF CLASS (Name of School)

(Attach list if additional space is needed)

(Rev. 5-68)

D3-20

TABLE 1

SUMMARY OF DATA DEVELOPMENT STATUS

ARIZONA

DATA ELEMENTS			PUBLIC SCHOOLS			STATE INSTITUTIONS			PRIVATE SCHOOL DATA
			CURRENT STATUS	METHOD OF DEVELOPMENT	SOURCE OF DATA	CURRENT STATUS	METHOD OF DEVELOPMENT	SOURCE OF DATA	
NUMBER OF CHILDREN IDENTIFIED AS NEEDING SPECIAL EDUCATION	ENROLLED	AGE	Available from forms SE-8 and SE-9	———	Classroom	Available at individual institutions	Submit to state agency, then to central data collection point (CDCP)	Individual institutions through state agencies, possibly using modifications of public school reporting forms	Available at individual school. Could be submitted to central data collection point on modification of public school reporting forms
		HANDICAPPING CONDITION							
		EDUCATION PROGRAM							
	ON WAITING LIST	AGE	Not available	Expand diagnostic procedures. Develop report format and procedure.	LEA	If available, not known to be clean of public school enrollees	Submit list and screen at CDCP		If available, not known to be clean of public school enrollees. Submit and screen at CDCP
		HANDICAPPING CONDITION							
NUMBER OF CHILDREN MOVING INTO AND OUT OF IDENTIFIED HANDICAPPED CHILD POPULATION	NEWLY DIAGNOSED AS NEEDING SPECIAL EDUCATION	AGE	Not available	Newly diagnosed when not equivalent to enrollment, can be reported on waiting list format when developed	LEA	Not available	Institutional diagnosticians, unless referred by LEA diagnosticians	Individual institutions or LEA	Individual school or LEA
		HANDICAPPING CONDITION							
	INTRA-STATE TRANSFERS	AGE	Available	———	Classroom	Not available	Use SE-9 format and report through state agency to CDCP	Individual institution through state agency	Use SE-9 format. Submit report to CDCP
		HANDICAPPING CONDITION							
	ATTRITION FROM THE IDENTIFIED HANDICAPPED POPULATION	AGE	Available						
		HANDICAPPING CONDITION							
		REASON							
YEARLY PROJECTIONS OF THE CHILD POPULATION, BY AGE			Available from existing statistics	Statistical and growth projection data	State statistics agency				
DATA USED TO SIMULATE SPECIAL EDUCATION	EDUCATION PROGRAM MIX TRENDS		Basic data available	Aggregate basic data and analyze	Division of Special Education				
	TYPES OF PERSONNEL AND PERSONNEL/PUPIL CONTACT RATIOS	TARGET GROUP	Available	Should be assembled into a personnel data bank	LEA (Form SE-12)	Available at individual institutions	Use format similar to SE-12	Individual institution through state agency to CDCP	Same as for state institutions
		EDUCATION PROGRAM							
OPTIONAL: NUMBER OF SPECIAL EDUCATION PERSONNEL EMPLOYED, BY TYPE									

ARKANSAS STATE ANALYSIS REPORT

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ARKANSAS STATE ANALYSIS REPORT

I. INTRODUCTION

Sponsored by the Bureau of Education for the Handicapped (BEH), Operations Research, Inc. (ORI) has developed a mathematical model that provides the framework for systematic consideration and evaluation of major elements contributing to the determination of special education manpower needs. The model has been designed for application by state special education agencies and when fully implemented will assist each state in the systematic prediction of its own special education manpower needs, based upon individual state educational characteristics. The model will simulate present and future manpower needs under varying assumptions regarding changes in personnel/pupil contact ratios, the educational program mixes, the child participation rate, or any combination of these variables.

Following development of this Manpower Requirements Projection Model, a visit was made to each of the 50 state special education agencies in order to familiarize the states with the objectives of the program and to conduct a survey of current state information flow procedures. The purpose of the survey was to review and analyze the capability and potential for utilization of this model by the state agencies responsible for the education of handicapped children. The survey included an analysis of:

a. The capability of existing information flow processes to provide the necessary model input data

b. The existing automatic data processing capability to operate the model program

c. The special education staff capability and desire to utilize the model.

This report presents the findings of the survey in the State of Arkansas and contains recommendations pertaining to the establishment of information flow procedures for model utilization as well as to the improvement of general information availability for special education program management. The data development status is summarized in Table 1 at the end of this report.

II. SUMMARY

In the State of Arkansas, public school special education programs are supported at the state level by the Special Education Section within the Division of Instructional Services, State Department of Education. The Director of Special Education was enthusiastic about the concept of the projection model, and expressed willingness to develop, as much as possible, the flow of data necessary to support the model. He and his staff were extremely courteous and cooperative in providing data on public school operations relevant to the projection model study and in assisting in interviews with, and data collection from, the other state agencies involved in education for handicapped children. The responsiveness of the Special Education Section to this effort is witnessed by the fact that their basic data collection instrument has already been modified to better obtain data elements useful in projection model application.

The Special Education Section currently receives enrollment data from public school programs and has modified the enrollment report form to obtain attrition data from these programs. The other data elements needed for projection model application could be obtained through further modification of current forms and through the addition of a new format for the collection of waiting list data.

Other programs for handicapped children are provided by the School for the Blind, the School for the Deaf, the Arkansas Childrens' Colony, and the sas State Hospital. Program administrators for each of these agencies indicated that data elements needed for the projection model could be monitored by them and provided to the Special Education Section. Good cooperation from these programs would be anticipated.

Private schools conducting special education programs can also be contacted by the Special Education Section, and good cooperation in providing needed data would be anticipated from these schools.

Special Education currently handles and tabulates all report data manually. Automatic data processing (ADP) has not been used in the past, and so application of the model in Arkansas would require that the Special Education Section establish an interface with the Department of Education's computer and data processing facility for purposes of running the model. Automated tabulation of data does not appear to be a firm requirement for the Special Education Section at this time, although the possibility of ADP application could be examined by the Special Education Section as part of the projection model implementation effort.

While the present storage capacity of the Department of Education's hardware may not be adequate for projection model application, additional capacity can probably be acquired, if needed, prior to the application of the projection model by the Special Education Section.

III. RESPONSIBILITIES FOR SPECIAL EDUCATION

Public school programs in the State of Arkansas are conducted under the auspices of the Arkansas State Board of Education, which is responsible to the Governor of the state. Programs are administered at the state level by the State Department of Education, headed by a Commissioner who is also the Executive Officer of the State Board.

Within the Department of Education is the Division of Instructional Services, and within this division is the Special Education Section. Special Education is responsible for the state-level administration of all public school special education programs. It is headed by a Director and is manned by four Field Supervisors, each of whom is responsible for the coordination of special education programs in one quarter-section of the state.

Residential school programs serving handicapped children in Arkansas function as independent state agencies and receive direct appropriations from the state for the support of their special education programs.

The School for the Blind and the School for the Deaf have state-accredited high school programs and so must report to the Department of Education on these programs each year. These schools are also staffed by state-certified teachers.

The Arkansas Children's Colony operates three units serving mentally retarded children. The Colony has its own Board of Directors, not responsible to the State.

The Arkansas State Hospital operates a special education program for emotionally disturbed children. It, too, has its own Board of Directors, not responsible to the State.

In addition to the public school special education programs and the state residential programs, there are ten private schools providing education for handicapped children. These include seven day schools for trainable mentally retarded, one residential school for trainable mentally retarded, one day school for learning disabilities, and one day school for physically handicapped.

IV. DATA ELEMENT EVALUATION

In order to fully utilize the Manpower Requirements Projection Model, specific elements of data should be available to the Special Education Section. The status of these elements and the requirements for development of the flow of these elements to the state level are discussed in the following paragraphs.

Enrollment

By May 30 of each year, Special Education receives the following report forms from each special education program operating in local public schools.

Form HC-1, Application for Certification of Handicapped Child

Form HC-2, Physician's Statement Regarding Handicapped Child

Form HC-4, Claim for Reimbursement for Instruction of Handicapped Children

Form HC-9, Special Education Roll.

The Special Education Roll lists children enrolled in each class, by year of age and by handicapping condition. A copy of this form (Figure 1) appears on the following page. This form does not indicate the specific kind of program in which the children are served (e.g., day special class, resource room, itinerant, etc.), but for Arkansas special education this is not a requirement. The kinds of programs in which children are served are determined by the handicapping condition of the children. For example, most children are enrolled in day special classes; special learning disabilities are served in resource rooms; speech therapy is provided on an itinerant basis.

The current Special Education Roll will enable Special Education to tabulate yearly enrollments for the projection model, by year of age, by handicapping condition, and, if needed, by program type.

Waiting Lists

Data on children diagnosed as handicapped but not yet enrolled in public school special education programs is not now available at the state level. The Director of Special Education reports that little or no data on children waiting for enrollment is available at the local school level. In order to obtain waiting list data for inclusion in the projection model data base, Special Education would have to develop a mechanism to monitor this data at the local level.

One approach to the collection of waiting list data on all handicaps could involve the creation and introduction of a simple form to be attached to the Special Education Rolls described in the previous paragraphs on enrollment. This form could be designed to list children diagnosed as handicapped but not yet enrolled in a program, by year of age and by type of handicap. Where there is more than one special education teacher in any given school, the teachers could be asked to coordinate the report forms on children waiting, in order to eliminate duplication in reporting those children.

Diagnoses of handicapped children are done at the local school level by Educational Examiners, who provide testing and consultation for individual

Form HC-9 (Rev.)

DISTRICT _____ NAME OF SCHOOL _____

NAME AND TITLE OF INSTRUCTOR _____

LEVEL OF ASSIGNMENT: PRE-SCHOOL ☐ ELEMENTARY ☐ JUNIOR HIGH ☐ SENIOR HIGH ☐

INSTRUCTOR PREPARATION: BACHELOR'S DEGREE ☐. MASTER'S DEGREE ☐ CERTIFIED IN SPECIAL EDUCATION? ☐YES ☐NO

STUDENT INFORMATION

Name Of Student	Age As Of Sept. 1	TYPE OF PROGRAM									DAYS ATTENDANCE									TERMINATION (IF ANY)		
		HI	VI	ED	LD	EMR	TMR	PH	SP	HB	1	2	3	4	5	6	7	8	9	Return to Reg. Class	Mortality	Other
1																						
2																						
3																						
4																						
5																						
6																						
7																						
8																						
9																						
10																						
11																						
12																						
13																						

(REPRODUCED FROM STATE FORM)

FIGURE 1. SPECIAL EDUCATION ROLL, FORM HC-9

school districts, and Psychological Examiners, who are essentially private practitioners working on contract to individual school districts for testing. In addition, each child certified as eligible for special education assistance must be examined by a licensed physician, and his report must be submitted to Special Education (Form HC-2).

For waiting lists at the local school level to be accurate, the special education personnel who would maintain the lists would have to be advised by educational and psychological examiners on an on-going basis, in order to include all children identified as handicapped during the year. Special education personnel would also have to be advised of any other diagnoses performed on children in a school. For example, the Arkansas Children's Colony sponsors a mobile diagnostic team that serves local public schools on a request basis. Local special education personnel should be advised of any handicapped children identified through services of this nature.

Movement Into and Out of the Handicapped Child Population

No data on annual incidence of handicaps is being collected by Special Education. Individual special studies of incidence have been performed by local staff, but this is not a regular procedure. National statistics on handicaps are relied upon in most instances to determine the estimate of handicapped population in the state. In addition, estimates of handicapped population, personnel needed, and funds needed are made for each Title VI State Plan application. The special education staff at the state level feels that, in general, the national statistics applied to Arkansas population provide a reasonable indication of incidence of handicaps in the state. It should be noted here that the use of national rates may be acceptable as a starting point in the estimation of annual incidence of handicaps, but these rates should be validated as much as possible by applying actual incidence counts, special studies, etc., to the estimations.

In order to obtain some actual incidence data for correction of validation of current incidence estimates (incidence rates being needed as input to the projection model), Special Education could attempt to monitor the number of new diagnoses of handicapped children being made each year. This monitoring could be accomplished in conjunction with the collection of enrollment and waiting list data, as described in previous paragraphs.

The Physician's Statement Regarding Handicapped Child (on following page, Figure 2) is attached to the Special Education Roll each year for each child enrolled. This form indicates whether the child was diagnosed for the first time that year as handicapped, or whether the child was enrolled in previous years. By reviewing these forms each year, Special Education could tabulate the number of children who were diagnosed or identified for the first time each year as handicapped, by type of handicap. Since year of age is not requested on this form, annual tabulation of new diagnoses by year of age would require cross-referencing to another report form, such as the Special Education Roll, unless an item requesting year of age were added to the Physician's Statement.

HC-2(3rd Rev.)

CHILDREN REPORTED IN PREVIOUS YEARS CAN BE CERTIFIED WITHOUT ADDITIONAL PHYSICIAN'S STATEMENT. INDICATE YEAR CHILD WAS LAST REPORTED _____.

PHYSICIAN'S STATEMENT REGARDING HANDICAPPED CHILD

To the Physician

Act 412, 1947; Act 315, 1949; and Act 169, 1963, Arkansas, provide state educational assistance for handicapped children, ages 6-20 inclusive, who need instruction at home or in special classes, or who need special facilities, equipment or instructional aids on account of their handicaps. Each child certified as eligible must be examined by a physician licensed to practice in Arkansas.

Name of Child _____ _____

1. A medical examination of the abov[illegible] [illegible]als the condition described:

(REPRODUCED FROM STATE FORM)

2. The child has [illegible]ved necessary medical care or treatment:

Yes ____ No ____

3. The child is in need of special educational assistance provided under Act 412, 1947; Act 315, 1949; and Act 169, 1963:

Yes ____ No ____

Date _____ Signed: _____
Physician

Address: _____

_____

FIGURE 2. PHYSICIAN'S STATEMENT, FORM HC-2

To obtain counts of newly diagnosed children not yet enrolled in programs, the waiting lists, suggested in previous paragraphs, could be designed to allow for indication of these children. For example, a column could be placed in the waiting list format and could be checked for each child newly diagnosed or identified as handicapped that year. Annual tabulation of new diagnoses by handicap type and year of age could then be done by Special Education, and combined with the tabulation of newly diagnosed enrollments.

In addition to children newly diagnosed as handicapped each year by local diagnostic personnel and physicians, it is possible that schools will acquire children who have previously been diagnosed or identified as handicapped in other school districts in the state. Rather than reporting the children again that year as newly diagnosed (which could distort the annual incidence picture in the state), these intrastate transfers should be reported separately as much as possible. The Physician's Statement Regarding Handicapped Child could also be used to identify intrastate transfers. Since this form now indicates whether each child has been certified as handicapped in previous years, it could be expanded to indicate whether the child has previously been certified in another school district.

Intrastate transfers could be indicated on the waiting lists in the same manner that new diagnoses could be indicated. A column could be included on the waiting list format and could be checked for each handicapped child who transfers into a district school from another district where he had previously been diagnosed.

If intrastate transfers could be indicated on the forms as described, Special Education could then differentiate intrastate transfers from the newly diagnosed children when making annual incidence counts.

An alternative approach to the collection of data on new diagnoses and intrastate transfers could involve modification of the Special Education Roll. For example, if a column could be added to the form, local personnel could use the column to indicate which children listed on the Roll were newly diagnosed as handicapped that year, or which children, previously diagnosed, had transferred into the school from another district. If diagnoses and transfers were indicated on the Special Education Roll, they could be tabulated, along with the enrollment data, from this single form. While the Physician's Statement, as previously described, could certainly be used to collect this data, tabulation of the data could be somewhat easier if the Special Education Roll were employed.

While no data on attrition from public school special education programs has been collected by Special Education in the past, the Special Education Roll has recently been modified to begin to record some data on attrition. The termination columns of the form allow local personnel to indicate the reason for any termination that occurs. Special Education can now use the Special Education Roll to tabulate annual attrition, by year of age and by handicap type. This

will satisfy the public school attrition data requirements of the projection model. The Special Education Section can also begin to review the specific reasons for termination each year for its own program planning and analysis purposes.

General Population Projections

Within the Department of Education, Division of Instructional Services, projections of the general school population in the state are currently being made by the Administration Section. Projections of the general child population, by year of age, should be available to Special Education, upon request, for inclusion in the projection model.

Trends in Enrollments

Data needed to plot and analyze enrollment trends in public school special education programs is currently available within the Special Education Section, being contained on the most recent version of the Special Education Roll. This form will enable Special Education to plot enrollment trends by handicap, educational level, and program type.

Personnel

If the Special Education Section would want to calculate the special education manpower "gap" each year, in conjunction with the projection model, accurate counts of special education personnel would be needed.

Data on the numbers and types of special education personnel employed in public school programs is currently available within the Special Education Section. The Director of Special Education surveys all Superintendents of Schools at the beginning of each year to obtain lists of teachers and therapists in the field of special education. Data on teachers' certification and area of handicap specialization is requested on the survey memo (see following page, Figure 3).

In addition to this survey, the Special Education Roll received from each program each year contains the name of the teacher or clinician conducting the program, and the type of certification held by that person. Counts of personnel from these Rolls can be used, if needed, to check the accuracy of the personnel counts received through the personnel survey.

The "Guidebook for Classes in Special Education," published by the State Department of Education, contains requirements for class size and age range that must be observed for each handicap program area. The personnel/pupil contact ratios that would be needed by the projection model would be available in this Guidebook.

Data From State Schools for Handicapped Children

Each of the four state residential schools serving handicapped children in the state operates as an independent agency. Data on the operations of these schools is not now available within Special Education but could be obtained

MEMO TO: All Superintendents of Schools

FROM: Tom J. Hicks, Director of Special Education, State Department of Education

SUBJECT: Public School Special Education Teachers

It has become necessary to have an accurate list of the names of teachers in the field of special education. Please fill in the teachers you have participating and check the appropriate information pertaining to them.

Name	Cert. in Area of Spec.	MR*	PH*	SP* TH	HB*	State Program	Federal Program
1.							
2.							
3.							
4.							
5.							
6.							
7.							
8.							
9.							
10.							

(REPRODUCED FROM STATE FORM)

Use back of form for additional personnel.

*MR-Mentally Retarded
PH-Physically Handicapped
SP. TH.-Speech Therapist
HB-Homebound

RETURN BY SEPTEMBER ~~15~~ 30 TO:
Director of Special Education
State Department of Education
Little Rock, Arkansas

_____
School District

_____
Official

FIGURE 3. SURVEY MEMO

directly from these schools on an annual survey basis. Each of the schools could be visited by Special Education staff during the year in order to facilitate the collection of the data. Special Education could also develop a set of forms and instructions that could be utilized by the administrators of these schools in responding to the requests for data.

Arkansas School for the Blind. The Principal of the School for the Blind indicated that enrollment and waiting list data, by year of age, is now being maintained and could easily be tabulated and provided to Special Education. The School for the Blind could begin to monitor the number of children who are newly identified or diagnosed as handicapped each year and could begin to monitor attritions, by reason, each year. The Principal felt that, in general, all data elements needed by Special Education could be provided each year.

Arkansas School for the Deaf. The Assistant Superintendent of the School for the Deaf indicated that enrollment data, by year of age, could be tabulated from current pupil records and that the relatively few children waiting to be enrolled in the program could easily be reported. He felt that, if needed by Special Education, the School for the Deaf could also begin to monitor the number of children, by year of age, who are newly identified as handicapped each year or who withdraw from the school each year. Here again, all data elements needed for inclusion in the projection model data base could probably be provided.

Arkansas Children's Colony. Approximately 1,200 children are currently enrolled in the three separate units of the Colony. The Information Officer indicated that a printout of age and handicap data on children enrolled in special education programs could be obtained from the automated pupil record system used by the Colony. A waiting list exists for the Colony, and counts of children waiting, by age and handicap could be made. Counts of children newly identified as handicapped each year have not been made, but the Information Officer felt that, if needed by Special Education, such counts could be made. Data on attritions from the Colony programs does exist, on current pupil records, and could be tabulated each year. Good cooperation in the provision of all data elements needed for inclusion in the projection model would be anticipated from the Children's Colony.

Arkansas State Hospital. The Director of Education for the State Hospital indicated that the projection model data elements needed by Special Education would be available from the program records currently maintained. Because of the relatively small size of the programs, enrollment and waiting list data would not be difficult to tabulate. Attrition data would be available through their follow-up procedure, and cumulative counts of children newly diagnosed or identified each year are already being made. Here again, good cooperation with Special Education would be anticipated.

Data from Private Schools for Handicapped Children

There are eight private schools providing special education in Arkansas. All are concentrated in the area of trainable mentally retarded, and all have small enrollments. Special Education already monitors the operations of these schools for data on enrollments and personnel. For the collection of data elements for inclusion in the model data base, Special Education personnel could survey the schools on an annual basis, making site visits to the schools and providing them with forms and instructions for recording the data elements needed. The Director of Special Education feels that a good working relationship exists with these schools and anticipates their cooperation in the provision of data.

V. PROCESSING POTENTIAL

Hardware

The State Department of Education currently receives data processing support from the Data Processing facility within the Finance Division. This facility houses an IBM 360-25 which now has 24K capacity. The Manager of the Data Processing facility stated that if the projection model storage requirements could not be met, using the present hardware, the capacity of this hardware could probably be expanded at such time as the projection model would be implemented by Special Education.

Personnel

The Data Processing facility currently employs a staff capable of providing all data processing support that would be needed for projection model application. This staff includes programming personnel and keypunch personnel. It appears that the Director and staff would be capable of both running the model and interpreting the results of the model, for Special Education. Because this Data Processing facility is within the Department of Education, good cooperation with Special Education would be anticipated.

Acceptance of Model Concept

Data collection and record-keeping is currently handled on a manual basis by Special Education. The requirements for data analysis have not, in the past, generated a need to apply automated data processing technique within Special Education.

While Special Education has not relied upon data processing support in the past, a positive attitude toward the employment of systems and data processing techniques for planning and management does exist. This attitude was reflected in the response made by the Director of Special Education to the concept of the projection model. He expressed interest in obtaining the model

for application in Arkansas and expressed willingness to develop as much as possible, the data flow that would be needed to support the model. He and his staff were extremely cooperative in providing information on special education program operations relevant to the projection model.

An example of the Special Education Section's responsiveness to this projection model study should be mentioned at this point. During the Arkansas site visit, the data elements needed for projection model input were discussed with the Director of Special Education and his staff. Following this site visit, the basic reporting form used by Special Education was revised to include the major data elements discussed. This revised form, the Special Education Roll, has been introduced in the public school programs, and so the Special Education Section is already beginning to develop a broader data base for planning and management purposes, and for eventual projection model application.

VI. ADDITIONAL FACTORS

The approaches to the collection of data on the Arkansas handicapped child population that were described in the Data Element Evaluation section of this report dealt only with data that would be available through existing special education programs. There are other potential sources of data on handicapped children identified in the state, and to establish a flow of data from these sources would require more extensive coordination on the part of Special Education. The Director of Special Education reports that there are three regional diagnostic centers, serving 25 counties, that would probably have records on diagnoses of handicapped children. There are also three state-wide diagnostic centers operated through a medical center, a county health department, and a state health department, and these could also provide diagnostic services for handicapped children. If Special Education wanted to "tap" these sources of data, there would be a requirement not only to enlist their cooperation and establish a flow of information but also to coordinate the data received from these sources with the data received from the operational special education programs previously described.

Of greater interest to Special Education might be the nine Title III service centers that are being planned for Arkansas. The Director of Special Education reports that these centers are scheduled to begin opening in 1970, and be completely operational by 1975. The centers will have diagnostic components and will provide complete coverage of the state. It is felt that if Special Education could establish a liaison with these centers, much additional data on the handicapped child population identified through these centers could be obtained.

Because data on the handicapped child population would be collected only through existing special education programs, the resulting data base would probably not be representative of the overall state population. While this data base could be used by Special Education as the basis for estimations of state-wide handicapped population, supplementary data from schools not having special education programs could be used in arriving at more accurate estimates.

In order to supplement data submitted by special education field personnel, Special Education could survey a selected sample of schools not conducting special education programs (possibly on an annual basis), requesting that they provide counts of children, by year of age and handicap type, who have been identified or diagnosed as handicapped and who would be in need of a special education program. Because of the number of schools that do not provide special education, a sample survey, as opposed to the establishment of an on-going reporting procedure, would probably be satisfactory for obtaining supplementary data of this nature.

VII. RECOMMENDATIONS

The Special Education Section currently receives enrollment data at the end of each school year. This data is reported on the Special Education Roll and satisfies projection model input requirements for year of age, handicapping condition, and type of educational program.

A mechanism to monitor waiting lists for the public school special education program would have to be developed by the Special Education Section. One approach to this problem would involve the introduction of a simple form to be used by local level personnel in conjunction with the Special Education Roll. If local personnel could maintain a list of all children diagnosed as handicapped but not yet enrolled in a program, this list could then be submitted to Special Education each year along with the Special Education Roll.

The Special Education Section currently receives a Physician's Statement Regarding Handicapped Child for each child enrolled in a program each year. This form can be used to tabulate the number of enrolled children newl diagnosed as handicapped each year. An item could also be added to this form to indicate whether the child was an intrastate transfer into the school that year. As an alternative approach to the collection of this data, Special Education could consider expansion of the Special Education Roll. If a column could be added to the form, local personnel could indicate which children were newly diagnosed that year or which children, previously diagnosed, had transferred into the school. Tabulation of this annual incidence data at the state level would probably be facilitated if the Special Education Roll were used to collect this data.

The suggested waiting lists could also be used to collect data for annual incidence counts. The waiting lists could be designed to allow local personnel to indicate which children were newly diagnosed that year, and which children were transferred into the school from other schoo. districts and special education programs.

The Special Education Section has begun to collect attrition data on public school special education programs. The Special Education Roll has recently been modified to indicate which children terminate from the programs

and the reasons for their terminations. Special Education will be able to tabulate this attrition data by year of age and handicap.

As described in the Data Element Evaluation section of this report, Special Education would be able to develop the other elements of data that would be needed to support the projection model. These include the general population projection data, data to plot enrollment trends and program mixes, data on numbers and kinds of special education personnel, and the contact ratios followed by them.

Public schools not having special education programs or personnel do not submit any data on handicapped children to Special Education. If Special Education would like to obtain additional data, to supplement the data normally received each year and to use as a basis for statewide estimations of the handicapped population, a survey of these schools could be conducted to determine whether they have identified any handicapped children. Because of the number of schools that would be involved, this survey would probably be considered on a sample survey basis.

Because each of the state residential schools operates as an independent state agency, the Special Education Section could request projection model data elements directly from each school. The Arkansas Children's Colony operates three separate units in the state, and so the collection of data on the operations of all of its units would probably be coordinated by the Colony's Information Officer.

Private schools providing special education programs could also be contacted by the Special Education Section on an individual basis and asked to monitor the data elements needed for projection model input.

For both the state schools and the private schools, the Special Education Section could develop forms and instructions to be used by the schools in responding to the request for input data each year.

The Special Education Section has not, in the past, utilized the automatic data processing capability of the Department of Education. All data collection and tabulation have been handled satisfactorily on a manual basis. The Director of Special Education feels that the data elements that would be needed for projection model input could probably be tabulated on a manual basis as well. Given the current level of enrollments, and the format of the Special Education Roll that summarizes much of the data needed for model input, manual tabulation could probably be continued (perhaps requiring some additional clerical support on an annual basis). The Special Education Section should, as part of the projection model implementation effort, examine the possibility of applying automatic data processing to its future data tabulation and record-keeping tasks. The application of ADP could probably be justified in terms of staff time and effort and in terms of the increase in flexibility of data analyses that would be realized.

VIII. RESOURCE REQUIREMENTS—MANPOWER

The collection of data elements needed for projection model application will center around the Special Education Section's current reporting system. Current forms can be expanded to include data elements not now available at the state level. For projection model implementation, tasks would include some modification to current forms and instructions; design of new forms and writing of new procedures and instructions; establishment of data flow and interface between the Special Education Section and the computer and data processing facility that would run the model at the state level; establishment of data flow liaison between the Special Education Section and the other state and private agencies operating special education programs; development of formats and procedures for aggregation of data at the state level in a form suitable for input to the model; some support to local level personnel, and to state and private schools, following introduction of forms and instructions. Many of the tasks that would be required during the implementation period could probably be handled by state-level staff of the Special Education Section. Some support on the part of a systems analyst would probably be needed, however, in the development of data handling procedures and in the overall coordination of the data flow, from the local level to the state level and then to the data processing facility. Approximately $1\frac{1}{2}$ man-months of systems analyst time and 1 man-month of computer programmer time should probably be devoted to automating the information system during the implementation stage. Approximately 2 man-months of Special Education staff time would probably be required during this stage, which would take from 24 to 30 months to complete.

If data were to be manually tabulated, design and implementation would take about 2 man-months of special education staff effort, 1 man-month of systems analyst time and 1 man-month of clerical work, and in addition, 2 man-months of clerical time, and $\frac{1}{2}$ man-month of Special Education staff time and about a man-week of system analyst time would probably be required over each year for on-going maintenance of the data flow and the model. If automatic data processing were to be employed for tabulation of the input data 1 man-week of a systems analyst's time, and 1 man-week of programming would be required over each year for on-going maintenance.

IX. PERSONS INTERVIEWED

Thomas Hicks, Director
Special Education Section
Division of Instructional Services
State Department of Education

Ernest Schnevley, Principal
Arkansas School for the Blind

Morris Rickle, Assistant Superintendent
Arkansas School for the Deaf

Jane Hawks, Information Officer
Arkansas Childrens Colony

Mazel Koonce, Director of Education
Arkansas State Hospital

William Srygley, Manager
Data Processing
Division of Finance
State Department of Education

Field Supervisors within the Special Education Section:

Natalie Pruett

Milburn Adams

William Puckett

Roy Wood

TABLE 1
SUMMARY OF DATA DEVELOPMENT STATUS
ARKANSAS

DATA ELEMENTS			PUBLIC SCHOOL PROGRAMS			STATE RESIDENTIAL/INSTITUTIONAL PROGRAMS			PRIVATE SCHOOL DATA
			CURRENT STATUS	METHOD OF DEVELOPMENT	SOURCE OF DATA	CURRENT STATUS	METHOD OF DEVELOPMENT	SOURCE OF DATA	
NUMBER OF CHILDREN IDENTIFIED AS NEEDING SPECIAL EDUCATION	ENROLLED	AGE	Available at state level		Special Education Rolls maintained by local level personnel	Data not now available at state level. Does exist at school level, but not tabulated in form needed	Could be obtained on direct request basis. Forms and instructions could be developed by Special Education Section	Individual schools (Ark. Childrens Colony would aggregate data from three units) pupil and personnel records	Data not now available at state level. Could be requested from each private school on individual basis, using forms and instructions developed by Special Education Section
		HANDICAPPING CONDITION							
		EDUCATION PROGRAM							
	ON WAITING LIST	AGE	Not now available	New format could be introduced	Local level personnel				
		HANDICAPPING CONDITION							
NUMBER OF CHILDREN MOVING INTO AND OUT OF IDENTIFIED HANDICAPPED CHILD POPULATION	NEWLY DIAGNOSED AS NEEDING SPECIAL EDUCATION	AGE	Partially available through physician's statements	Could also be added to Special Education Rolls	Physician's statements and/or modified Special Education Rolls				
		HANDICAPPING CONDITION							
	INTRA-STATE TRANSFERS	AGE	Not now available	Could be added to current formats	Modified physician's statements and/or Special Education Rolls				
		HANDICAPPING CONDITION							
	ATTRITION FROM THE IDENTIFIED HANDICAPPED POPULATION	AGE	Available at state level		Special Education Rolls				
		HANDICAPPING CONDITION							
		REASON							
YEARLY PROJECTIONS OF THE CHILD POPULATION, BY AGE			Basic data available	Could be requested by Special Education Section	Administration Section				
DATA USED TO SIMULATE SPECIAL EDUCATION	EDUCATION PROGRAM MIX TRENDS		Available at state level		Special Education Rolls	Same as above	Same as above	Same as above	Same as above
	TYPES OF PERSONNEL AND PERSONNEL/PUPIL CONTACT RATIOS	TARGET GROUP			Guidebook for classes in special education				
		EDUCATION PROGRAM							
OPTIONAL: NUMBER OF SPECIAL EDUCATION PERSONNEL EMPLOYED, BY TYPE					Personnel survey sheet, and Special Education Rolls				

CALIFORNIA STATE ANALYSIS REPORT

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The research reported herein was performed pursuant to Contract No. OEC 0-9-08928-0710 with the Bureau of Education for the Handicapped, Office of Education, U.S. Department of Health, Education, and Welfare. Contractors undertaking such projects under Government sponsorship are encouraged to express freely their professional judgment in the conduct of the project. The points of view or opinions stated do not, therefore, necessarily represent official Bureau position or policy.

CALIFORNIA STATE ANALYSIS REPORT

I. INTRODUCTION

Sponsored by the Bureau of Education for the Handicapped (BEH), Operations Research, Inc. (ORI) has developed a mathematical model that provides the framework for systematic consideration and evaluation of major elements contributing to the determination of special education manpower needs. The model has been designed for application by state education agencies and the Bureau of Education for the Handicapped. When fully implemented, it will assist each state in the systematic prediction of its own special education manpower needs, based upon individual state educational characteristics. The model will simulate present and future manpower needs under varying assumptions regarding changes in personnel/pupil ratios, the educational program mixes, the child participation rate, or any combination of these variables.

Following development of the model, a visit was made to each of the 50 state special education agencies in order to familiarize the states with the objectives of the program and to conduct a survey of current state information flow procedures. The purpose of the survey was to review and analyze the capability and potential for utilization of this model by the state agencies responsible for the education of handicapped children. The survey included an analysis of:

a. The capability of existing information flow processes to provide the necessary model input data

b. The existing automatic data processing capability to process the model program

c. The special education staff capability and desire to utilize the model.

This report presents the findings of the survey in the State of California and contains recommendations pertaining to the establishment of information flow procedures for model utilization as well as to the improvement of general information availability for special education program management. The data development status is summarized in Table 1 at the end of this report.

II. SUMMARY

The California Division of Special Education is in a position to initiate the information flow necessary to provide the data required for the Manpower Requirements Projection Model utilization but a data processing delay is almost inevitable at this time. A good flow of data now exists from the local education agencies to the state but the data elements are not being fully utilized due to the time lag between the receipt and the processing of the data and to the incompleteness of the set of data elements collected. If the data processing delay can be alleviated or eliminated, a more complete special education information system has a high probability of being developed and implemented in a relatively short period of time.

The proposed information system should result in successive improvements in the completeness and the accuracy of the data elements over time, with such validity being achieved within a few years at the most. Later documents pertaining to this project contain more information about methods which may be used to estimate some of the data elements until a good information flow is developed and validated.

The data processing hardware available to the Division of Special Education from the Bureau of Systems and Data Processing is capable of handling both the model data processing programs and the programmed model itself. Availability of this hardware and of the bureau's staff is currently the only constraint.

III. RESPONSIBILITIES FOR SPECIAL EDUCATION

In the State of California, the administration of special education services is performed by two state level departments, Education and Mental Hygiene.

The Department of Education (see Figure 1 for the organization chart), through its Division of Special Education, is responsible for the coordination and direction of special education provided by the local school districts and the state schools. Currently there are 786 elementary, 170 secondary, and 236 unified school districts and five state schools (two each for the deaf and the neurologically handicapped, and one for the blind) that report to the division. Some of the 58 counties operate their own special education programs

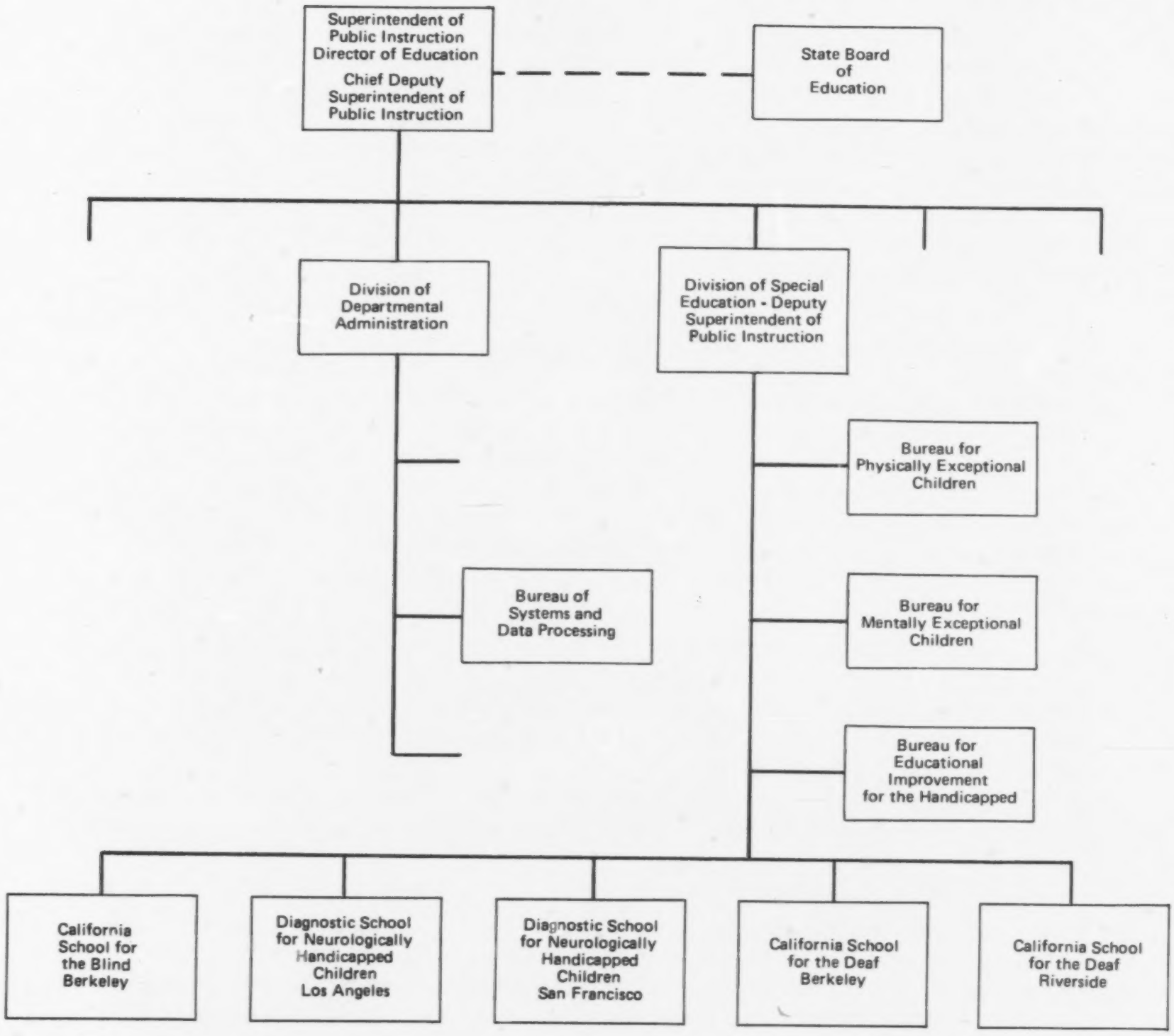

FIGURE 1. SPECIAL EDUCATION RELATED ORGANIZATIONAL UNITS OF THE CALIFORNIA STATE DEPARTMENT OF EDUCATION

and must report directly to the Division of Special Education. The programs sponsored by the local school districts and the counties are reviewed and coordinated b y the three bureaus in the division, and data about these programs are formally reported to the division. The data received by the Division of Special Education from the local education agencies are processed on a priority basis by the Bureau of Systems and Data Processing in the Division of Departmental Administration. In contrast to this formal reporting system, the state sponsored schools have a great deal of autonomy and report detailed data on an "as requested" basis.

The Bureau of Rehabilitation and Education in the Department of Mental Hygiene is responsible for the operation of the special education programs in the two state hospitals serving the educationally handicapped children and the eight state hospitals for the mentally retarded. Another bureau in this department, the Bureau of Biostatistics, handles all of the data from these hospitals. Although there is no formal line of communication between this bureau and the Division of Special Education, an analyst in the Bureau of Biostatistics indicated that, since the data is completely automated, the bureau would be willing to perform the relatively easy cross tabulations needed by the Division of Special Education if the division would be willing to reimburse the bureau for the computer time utilized.

Although private schools are not within the control of the Department of Education, the Division of Special Education oversees the tuition payments to a parent or guardian by a local district for nonpublic special education when the district cannot provide services to a child. Such payments probably do not involve more than half of the nonpublic enrollment in special education, but since the proportion of handicapped children enrolled in nonpublic programs is small, the data lost are probably not significant.

IV. DATA ELEMENT EVALUATION

All data for locally sponsored special education that are currently collected by the Division of Special Education on a continuing basis originate from the school district superintendent and are approved by the county superintendent. The division also receives some data from the state schools. Most of the data for the special education conducted in the eight state hospitals (out of a total of 15 hospitals) is collected and processed by the Bureau of Biostatistics, Department of Mental Hygiene. In the following paragraphs, the data elements needed by the Manpower Requirements Projection Model are discussed in terms of their availability and development potential.

Enrollments

The number of children enrolled in special education, the first component of the most important data element (the number of children identified as needing special education), is currently reported by local education agencies

on Form D-1, Part B, for the first enrollment period, July 1 to December 31. Form D-1 (see pages D5-19 thru 23), submitted by the District Superintendent and reviewed by the County Superintendent, contains the number of children enrolled by handicapping condition and two types of educational programs (integrated classes and self-contained classes) but not by age during the first half of the fiscal year. This schedule of reporting cannot be changed in California because it is the basis of the funding distribution to the local school districts. Another problem is a certain amount of double counting in the enrollment data (especially in integrated classes) because the form's instructions state that "any minor enrolled in more than one special education class or program is to be counted in each."

Translatable into enrollments, pupil contacts (by handicapping condition, educational program, and education level) in local public programs are being reported on a one time basis by each special education teacher for a special survey (of teachers, supervisors, and administrators) being conducted during December, 1969. It would be far easier to add the dimension of age to this teacher survey form and conduct the survey annually than to add it to Form D-1 since D-1 processing has already been programmed for the Special Education Apportionment System and adding another dimension to the form could make it unwieldy to fill out and thus affect the validity of the data reported. If the teacher survey is to be annual, designing the data form in a mark-sense format, as is currently used in New York, will eliminate much of the keypunching step in the processing cycle. Additional comments about this format are found in Section V, Processing Potential, and Section VII, Recommendations.

Currently, enrollment reports from the five state schools are by grade only but could be requested by age. Unless the possibility of double counting exists (which is more likely in the secondary level), the teachers at these schools can be included in an annual teacher survey and the reported enrollments, by age, would satisfy that data element required by the model.

Within the Department of Mental Hygiene, enrollments are tabulated from the automated records of each hospital resident. The Bureau of Biostatistics collects data about each resident on a mark-sense form entitled "Population Census Standard Form, WICHE Joint Data Collection Project" (see pages D5-29, 30). These data can be cross tabulated to produce either special education enrollments or total resident child population by age and handicapping condition. This bureau indicated a willingness to produce such tabulations if the Division of Special Education desires them and provides funds to purchase the computer time required.

About one-half of the private school enrollments is being reported, by handicapping condition, because of the California tuition payment program. Under this program, if the local school district cannot provide the special education services that a child needs, the district will pay for the child's

tuition at another public or a private school. The data reported about this program is thus misleading; the children attending other public schools, specifically the state schools, are reported as enrollments by those schools and, since these children are not reported separately, it is very difficult to determine the actual number that are reported as enrolled in private schools. The only method of obtaining accurate (yet not necessarily complete) data about the number of children receiving special education in private schools is to request the data on a voluntary basis from each school, perhaps using a form similar to that used for the public school teacher survey.

Waiting List

Currently, since children are often not reviewed by the local admissions committee to determine their eligibility until a place in special education exists for them, reports about the number of children on special education waiting lists, the second component of the identified handicapped child population, are incomplete. Such reporting of local district waiting list data is currently being done for the first enrollment period on Form D-2, "Report of Handicapped Minors Whose Applications for Enrollment in a School, Special Class, or Program were Denied...." The instructions on the form explain that "pupils in regular day classes who have been officially identified as speech handicapped, mentally retarded, educationally handicapped, and so forth, and who are awaiting enrollment in special education programs are to be reported." Districts are not required to report these children by age but since a column for date of birth exists on the present form, such data could be requested.

A few words of caution should be considered when using the data from Form D-2. First, the old form requesting waiting list data, D-3, described the children as "not participating in special education" and produced inconsistent data because the school district's interpretation of the data requested varied from "those formally presented and denied admission" to "those thought to exist." The instructions on the revised Form D-2 specify that the children be "officially identified" but residual misinterpretation may still exist which will affect the validity of the data. Secondly, since the D-2 report is for a six-month time period rather than a point in time, children who had been on a waiting list during the time period but had dropped off of it before the end of the time period, due either to moving out of the district or being placed in special education, are either double counted (once as being on the waiting list and once as being an enrollee) or miscounted (as on the waiting list rather than as an attrition from that district's identified handicapped child population). The latter could be eliminated by adding a column to indicate whether or not the child is still on the waiting list at the end of the report period and, if not, whether the child has been placed in special education.

If an attempt is to be made to collect waiting list data from the state sponsored programs, this list should be updated and validated to ensure that a

child is not double counted (as being on a waiting list at the state level and also as being an enrollee at the local level) or miscounted.

Unidentified Children

Since no systematic diagnostic referral system now exists at the state or local level, data on the unidentified handicapped child population will probably have to be estimated using California's published prevalence rates rather than an estimate of the diagnostic waiting list and the potential undiagnosed population. The published prevalence rates are:

- Educable Mentally Retarded - 2.0%
- Trainable Mentally Retarded - 0.3%*
- Deaf - 0.08%
- Severely Hard of Hearing - 0.05%
- Moderately Hard of Hearing - 0.95%
- Speech Handicapped - 4.0%
- Aphasic - 0.02%
- Blind - 0.04%
- Partially Seeing - 0.06%
- Orthopedic or Other Health Impairment - 1.5%.

No prevalence rate has been estimated for children classified as Educationally Handicapped because the classification is limited by legislation to 2% of the public school enrollment.

Using prevalence rates is an interim method of estimating the total handicapped child population. These rates are a starting point for such an estimation, but to be useful in the long run, not only for applying the model but for other state planning purposes, they should be validated with actual data. Such validation can be done by collecting appropriate data and making successive approximations. Later documents pertaining to this project will contain more detailed descriptions of alternative methods of validating these rates.

Entrants and Attritions

Information about the number of children moving into and out of the identified handicapped child population is currently partially collected; data on new entrants to that population are not now collected and, except for the

* 0.05% of these are expected to be cared for in nonpublic school placements.

speech handicapped category, data on attritions from that population are only collected for the first period (July 1 to December 31) and do not always include attritions from the waiting list.

The local school districts have a good mechanism to enable them to keep data about new entrants, viz., an admissions committee which considers the diagnostic recommendations and decides if the child is eligible for special education or if he should remain in the regular classroom. However, due to the lack of a structured diagnostic reporting system, i.e., all or most of the diagnoses reported to the admissions committee in the child's school district, and to the fact that a child who has been diagnosed is sometimes not considered by the committee until there is an opening in special education, the number of children newly diagnosed as needing special education (or those who were previously diagnosed in another district and are considered as intra-state transfers) cannot be completely or accurately collected. If the individuals or agencies performing diagnoses can be effectively encouraged to submit a record of any diagnosis to the appropriate local admissions committee and if the committees can be convinced of the value (for local as well as state planning purposes) of identifying all eligible children, a simple matrix form, one by age and handicapping condition, could be developed to request the data from the admissions committee. This form, an example of which is presented in Figure 2, can be used by the committee to record the data (in a hash-mark fashion) during the year and to tabulate the results at the end of the year. Other state schools and hospitals could also use this type of form to report new entrants who have not been screened previously by a local admissions committee.

Attritions, by handicap and age, from the identified population are reported to the state by each District Superintendent on the new (as of 3/69) Form D-2, along with the waiting list data, but the completeness of the data is suspect. There is a good chance that attritions from the waiting list (unserved) population are not reported because, although the form's instructions state

> "Education Code Section 12104 requires that upon the severance of attendance of any child who is physically handicapped, mentally retarded, or multiply handicapped (implying <u>all</u> children identified not just those enrolled in special education), each private school and public school district shall report such severance, expulsion, exclusion, exemption, drop out, or suspension beyond ten schooldays,"

the form is entitled "... Report of Handicapped Minors not Continuing in Attendance after Admission," implying that only those who were enrolled in special education are to be reported. Any potential misunderstanding can be avoided by clarifying the instructions and adding some other exclusion codes, e.g., returned to normal education, suspension beyond ten school days but re-entered

Handicapping Condition / Age / Source	Deaf		Hard of Hearing	
	Newly Diagnosed	Intra - State Transfer	Newly Diagnosed	Intra - State Transfer
2	III		~~IIII~~ I	
3				
4				
5				
6		I	~~IIII~~ ~~IIII~~	
7				~~IIII~~ II
8				
9				

FIGURE 2. EXAMPLE OF MATRIX FORM TO COLLECT LOCAL DISTRICT DATA ABOUT NEW ENTRANTS TO HANDICAPPED CHILD POPULATION AND EXAMPLE OF HASH-MARK ENTRIES

school, etc. In regard to the first additional code, specialists in the Division of Special Education believe that information concerning attritions to regular classes is very important, especially in the area of the educationally handicapped.

The division's consultant for the speech handicapped and moderately hard of hearing programs annually sends out a report form, to be completed by all speech and hearing specialists, that contains a request for the number of children who return to normal school. The 1966-67 data from that form show that 26.95% of the children served returned to normal school.

If the state schools under the Division of Special Education are not required to report their attritions by name on a form similar to D-2, they could be asked to keep track of their attritions on a simple matrix form, similar to the one presented in Figure 2, with the added dimensions of reasons for attrition within handicapping condition.

In order to receive attrition data from the hospitals under the Department of Mental Hygiene, a cooperative arrangement could be made whereby the Bureau of Biostatistics would tabulate the attritions as the automated records of the residents (and possibly the waiting list) are updated.

Other Data Elements

Ten year projections, by age, of California's school age population, used by the Manpower Requirements Projection Model to calculate the projected number of new entrants into the handicapped child population, are currently being prepared by the Population Research Unit in the Department of Finance.

The Chief of the Division of Special Education and/or his staff of bureau chiefs and consultants can provide the data needed to simulate special education. Thus, no further development effort is needed for these data elements:

- Trends in the number or proportion of enrolled children being served in each gram, by target group (an educationally meaningful combination of handicapping condition and education level); termed educational program mix
- The types of personnel (occupations) serving each target group in each educational program and their associated personnel/pupil contact ratios.

If California wishes to annually collect data on the number of special education personnel employed, by type, in order to calculate the current manpower gap, it could use the same forms and procedures being used for the

December 1969 teacher survey. A request for information about the number and types of paraprofessionals employed could be added to the form filled out by the special education supervisors.

V. PROCESSING POTENTIAL

All data for the California Department of Education is received, maintained, processed, and reported by the Bureau of Systems and Data Processing in the Division of Departmental Administration. The bureau os currently converting many of its processing tasks from the RCA 301 computer, which does not have a FORTRAN compiler, to its new IBM System 360/50. The latter machine does not have a FORTRAN compiler either, but the bureau wants to install one in the near future.

In 1969, the Bureau of Systems and Data Processing suffered a substantial cut in its budget and had to lay off staff, mainly keypunchers. As a result, there is a very large backlog of work to be keypunched, such that the computers are not fully utilized because the input cannot be prepared rapidly enough. Thus, data formats that do not require keypunching (e.g., mark-sense forms) are more likely to be processed in a short period of time. The remaining staff of systems analysts and programmers also has a backlog of work brought on by the computer conversion and by two large scale information systems which are in the process of being developed and implemented.

These two systems, one oriented to state level record keeping (California Educational Information Management System — CEIMS) and the other oriented toward regional level record keeping (California Educational Information System — CEIS), are not expected to be completed and operational before 1972 unless more staff can be assigned to the projects. Since the Bureau of Systems and Data Processing does not have extra staff to assign, it has contracted with two private software firms for assistance. The Bureau Chief indicated that it would not be a problem to expand the files of these systems' to include any additional special education information during the systems development and preliminary programming phases. Thus, the desired special education information flow should be developed as soon as possible.

A further discussion of CEIMS and CEIS is found in Section VI, Additional Factors.

The Division of Special Education staff expressed enthusiasm over using the mathematical model to project special education manpower requirements and as a working tool for planning purposes by simulating the effects of changes in state policy. The staff is capable of preparing the input for, and analyzing and evaluating the output from such a model. Mr. Charles Watson, the Division Chief, expressed a willingness to direct the effort necessary to implement the model and an information system to support it but also indicated that additional manpower would be needed by the Division or the Bureau of Systems and Data Processing to do the systems development and implementation.

VI. ADDITIONAL FACTORS

Because of the very large number of children and teachers involved in special education in California and because the staff of the Division of Special Education is very small in comparison, except for areas oa handicapping conditions that have very few children, there is not very close contact between the state staff and the local district staffs. Since 1192 local school districts (not including junior college districts) possibly could provide special education services, such close contact would be unrealistic; thus, the division currently uses the county superintendents as contact points for data and is planning to receive future data from a centralized source, i.e., a regional center. The division can therefore leave it up to that source to ensure that the data received from the local districts are complete and accurate and that the quality of the local special education programs conforms with legislation and the division's policies. As of September 1969, there were 12 regional centers in the state serving about 20% of the local districts.

The CEIS, previously mentioned, is working primarily with the regional centers, each of which has access to a computer, and is essentially a full pupil accounting system. Its systems design does not now include children enrolled in special education, but it is planned to include them in the near future.

The CEIMS, which is not yet working with the regional centers, will contain summary information at the state level of the data in each regional center's CEIS. One of the first parts of the CEIMS will be the summary information from the December 1969 teacher survey; the individual records from that survey will be retained in CEIS.

Another system that relies on an intermediate level between the local and the state is PACE (Program for Advancement of Creativity in Education). These centers for local analysis assist the local school districts in formulating Title III projects. Although most of the work of the PACE centers has little to do with a special education information system, they do develop designs that the local districts can use to survey their population for identification of handicapped children. However, it is up to the local district to conduct the survey.

Some other factors relating to the conduct of special education services could affect the design of an information system (or sub-system) in California. For example, a question will arise as to where to include the children in Alpine County; because of geography, they are educated in Nevada. Thus, although California pays for their education, they generate manpower, etc., requirements in Nevada.

As was discussed in Section IV, incomplete data may result from the practice of not reviewing diagnosed children until a vacancy exists in a special education class. However, if that vacancy exists and there is a child

identified as needing that type of special education, it is "illegal" not to place the child in the class.

There is also the possibility that a child previously identified as having handicapped mental retardation will be rediagnosed as either educationally handicapped (EH) or a category that is now in the planning stages, culturally deprived. Such rediagnosis occurred in 1964 when the educationally handicapped category was added. Figure 3 depicts this situation in the past and the potential one in the future.

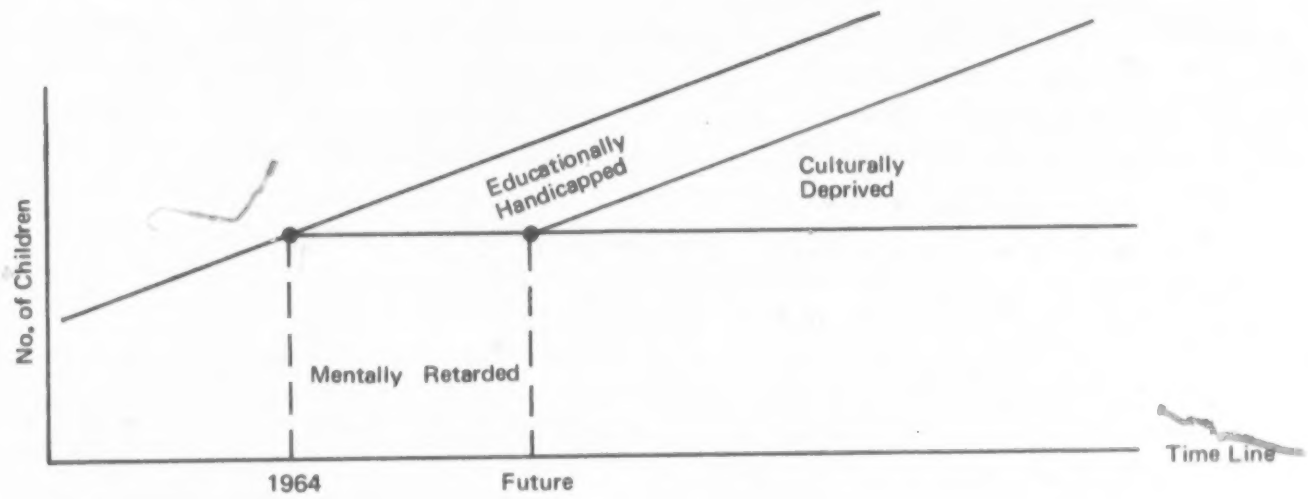

FIGURE 3. EFFECTS OF ADDING NEW CATEGORIES ON THE HANDICAPPED CHILD POPULATION

In addition to defining the new culturally deprived category, it is planned to transfer the education of such children from the Division of Special Education to the Division of Compensatory Education, which now administers similar programs such as Head Start. Because the state legislature has placed a limitation on the number of children that can be enrolled in programs for the EH (2% of the total child population) in order to eliminate the possibility that a large number of children needing only remedial instruction would be placed in those EH programs, the defining of this new category could become very important to the educational setup in California.

If the Division of Special Education uses the Manpower Requirements Projection Model to predict the number of physical and occupational therapists

needed, the information should be forwarded to the Department of Public Health, since it is responsible for employing these types of personnel.

VII. RECOMMENDATIONS

In order to provide for data needs of the Manpower Requirements Projection Model, it is recommended that, until the CEIS and CEIMS are completed and operational and contain data from all of the local school districts, California modify existing forms to obtain data by age, that the teacher survey be conducted annually, and that simple matrix forms be developed to obtain data about new entrants to the handicapped child population.

Point in time enrollments should be obtained from each special education teacher on forms similar to those used in the December 1969 teacher survey, with the addition of a request for a summary of the children enrolled by age. Since the processing of the data has already been designed and programmed, a minimum of effort would be needed to effect the changes. However, it is also recommended that the Division of Special Education consider using machine-readable (e.g., mark sense) forms to collect the information to help eliminate the key punching phase of input data preparation. Such mark-sense forms are now used by CEIS for some of its input data.

The waiting list data should use a point in time, ideally the same point in time as enrollment data, if there is to be any significance to the count of the number of children identified as needing special education. Because of this and since it would be less confusing to the individuals reporting the data, it is recommended that a form similar to the current D-2 be used to collect <u>only</u> waiting list information (those children formally identified and denied admission) by age or date of birth.

As was discussed in Section III, in order to collect good incidence data, which is based upon the number of children newly diagnosed as needing special education during a year, and to compile data on intra-state transfers, the admissions committees of the local school districts should be encouraged to consider children for possible certification (as eligible for special education) as soon as the children are brought to their attention. Actually collecting data, even on a simple matrix form, processing it, and then distributing it will psychologically encourage the committees to supply the data; they will have a sense of participation in a worthwhile effort.

Data about the number of children attriting from each handicapped group during a year could be collected using the current reporting schedule on Form D-2 with the addition of a few reason codes such as "return to normal education" and "moved out of district." The data for the first reason code can also be used by the state to indicate "educational cures." The data for the second reason, in conjunction with data about entrants via intra-state transfer, will give the state a picture of the movements within the state and enable planners to spot trends—e.g., children moving into districts that provide special education and out of districts that do not.

Conducting the teacher survey annually would give the Division of Special Education accurate data on the number of teachers of special education employed, by type, degree level, and certification (credential) status.

It is also recommended that copies of the tabulations and statistics based upon the data received be sent to the district and county superintendents. By increasing local involvement in the use of the reported data, the data gathering task should be facilitated.

VIII. RESOURCE REQUIREMENTS—MANPOWER

Manpower will be required for forms design/modification and development of instructions and for the systems analysis needed prior to the computer programming (both new and reprogramming) of the information processing. For the first couple of years, the task of coordinating with the local districts (i.e., answering any questions that may arise about the new or revised forms, engendering local support for the information system, and ensuring the completeness and accuracy of the reported data), through the county superintendents, could probably be assigned part-time to all the consultants in the Division of Special Education. Thereafter, this task of coordinating will require very little effort on the part of the consultants.

The Chief of the Division of Special Education, by virtue of his position and influence, is the only person who can request the cooperation of the five state schools and who can negotiate with the Bureaus of Biostatistics and of Rehabilitation and Education, in the Department of Mental Hygiene, to obtain their cooperation. The amount of time that the latter will require is dependent upon the attitudes and organizational structure of that agency. The personnel in both of these bureaus seem to be very interested in cooperating and exchanging information.

It is estimated that the design and implementation phase will require 4 man-months of special education effort, 1 man-month for forms design, 1 man-month of systems analyst time, and 2 man-months of programming work over a period of 24 to 30 months.

System maintenance is estimated to require about $2\frac{1}{2}$ man-months of combined effort annually.

IX. PERSONS INTERVIEWED

The persons interviewed by the ORI (Leasco) representative, Miss Beverly Johns, during the week of 3 September 1969 were:

Mr. Charles W. Watson	Deputy Superintendent of Public Instruction (Chief, Division of Special Education), California State Department of Education
Mr. Richard W. Outland	Assistant Chief, Division of Special Education
Mr. Barry Griffing	Chief, Bureau for Physically Exceptional Children, Division of Special Education
Dr. Arthur Phelan	Chief, Bureau for Educational Improvement for the Handicapped, Division of Special Education
Dr. Joseph P. Rice	Chief, Bureau for Mentally Exceptional Children, Division of Special Education
Mr. Eugene E. Black	Special Consultant, Scholarship and Special Institute Programs, Division of Special Education
Mrs. Beatrice Gore	Consultant, Programs for the Orthopedically Handicapped and Other Health Impairments, Bureau for Physically Exceptional Children
Mr. Fred Hanson	Consultant, Programs for the Mentally Retarded, Bureau for Mentally Exceptional Children
Mr. Gordon Hayes	Consultant, Programs for the Deaf and Severely Hard of Hearing, Bureau for Physically Exceptional Children
Miss Dorothy Misbach	Consultant, Programs for the Blind and Visually Handicapped, Bureau for Physically Exceptional Children

Dr. Margaret Scheffelin	Consultant, Programs for the Educationally Handicapped, Bureau for Mentally Retarded Children
Mr. Edward Stark	Consultant, Programs for Speech Handicapped and Moderately Hard of Hearing, Bureau for Physically Exceptional Children
Dr. Alvin Grossman	Chief, Bureau of Systems and Data Processing, Division of Departmental Administration, California State Department of Education
Mrs. Margaret Perry	Associate Analyst, Liaison to Division of Special Education, Bureau of Systems and Data Processing
Mrs. Patricia Brown	Programming Supervisor, Bureau of Systems and Data Processing
Mr. Axel Larson	Associate Analyst, Assigned to Redesign Special Education Apportionment System, Bureau of Systems and Data Processing
Mr. Blair Hurd	Assistant Chief, Bureau of Teacher Education and Certification, Division of Departmental Administration, California State Department of Education
Mr. Allan Toedter	Chief, Bureau of Rehabilitation and Education, California State Department of Mental Hygiene
Mr. Raymond Bemis	Analyst, Bureau of Biostatistics, California State Department of Mental Hygiene

X. CURRENT REPORT FORMATS

- D-1—First Period Enrollment Report for Special Education Programs, Parts A, B, and C
- D-2—Report of Handicapped Minors Whose Applications for Enrollment in a School, Special Class, or Program Were Denied; and Report of Handicapped Minors Not Continuing in Attendance After Admission
- J-22-P1—First Period Report for Special Programs
- J-26.1—Special Education Expense and Income
- Population Census Standard Form, WICHE Joint Data Collection Project, 1967—used by Bureau of Biostatistics, Department of Mental Hygiene
- Examples of forms used by the CEIS.

CALIFORNIA STATE
DEPARTMENT OF EDUCATION
FORM J-1 PART A NEW 2-69

FIRST PERIOD ENROLLMENT REPORT FOR SPECIAL EDUCATION PROGRAMS

COUNTY AND DISTRICT CODE ___ ___

FOR THE PERIOD: _____

GRADE SPAN _____

SCHOOL DISTRICT _____ COUNTY _____

Check here if only Part A is returned [ ] District indication, Part A only [ ] County Verification	Check here if only Parts C and D completed [ ] District Indication, only C and D Completed [ ] County Verification	ADA REPORTED IN J-22. P1 FOR PERIOD (1)	ENTER ADA IN PART A, COL 1 ON THE LINE IN PART B SPECIFIED IN THIS COLUMN (2)
D-1 Part A	District name, grade span, and the ADA amounts reported to us in your J-22. P 1 for the period, have been printed here for your information. ADA printed in Column 1 (if any) is to be entered on the line in Part B specified in column 2 of Part A. If there is no ADA in column 1 omit Part B and do Parts C and D only.		

FROM J-22. P1:

	LINE	(1)	(2)
II. Attendance for Physically Handicapped in Special Day Classes			
Hearing Handicapped			
A. Deaf	1		042
B. Severely Hard of Hearing	2		045
C. Both Deaf and Severely Hard of Hearing	3		050
Vision Handicapped			
D. Blind	4		053
E. Partially Seeing	5		056
F. Both Blind and Partially Seeing	6		061
G. Orthopedic and Other Health Impaired	7		065
H. Aphasic	8		068
	9		
J. Pregnant Girls	10		069
K. Totals for Special Day Classes (Lines 1 - 10)	11		070
L. Other Physically Handicapped			
1. In Regular Day Classes	12		079
2. In Remedial Physical Educ	13		080
3. Other Remedial Instr	14		088
4. Individual Instruc	15		098
M. Total Other Physicali pped (Lines 12 - 15)	16		099
N. Total Average Daily Attendance for Physically Handicapped (Lines 11 plus 16)	17		100
O. Blind Pupils (Certain expenses incurred)	18		104
III. Attendance for Mentally Retarded			
A. Educable Mentally Retarded	19		105
B. Trainable Mentally Retarded	20		106
V. Attendance Data for Educationally Handicapped			
A. Special Day Classes for Educationally Handicapped			
1. Kindergarten and Grades One and Two	21		
2. Grades Three through Six	22		
3. Grades Seven through Twelve	23		
4. Total in Special Day Classes for Educationally Handicapped (Lines 21 - 23)	24		110
B. Other Educationally Handicapped			
1. Learning Disability Groups	25		
2. Home and Hospital Instruction	26		
3. Total Other Educationally Handicapped (Lines 25 plus 26)	27		113
C. Total Average Daily Attendance for Educationally Handicapped (Lines 24 plus 27)	28		114
Total Average Daily Attendance (Lines 17 - 20 and 28)	29		115
		ENROLLMENT:	
VI. Enrollment of Mentally Gifted Minors			
A. Number of Pupils Participating for One Semester	30		120
B. Number of Pupils Participating for One School Year	31		121

(REPRODUCED FROM STATE FORM)

CALIFORNIA STATE
DEPARTMENT OF EDUCATION
FORM D 1, PART B (NEW 3-69)

FIRST PERIOD ENROLLMENT REPORT FOR SPECIAL PROGRAMS

CODE					

(Enter from Part A.)

Part B

For the period beginning July 1, 1968, and ending December 31, 1968

District name.....County.....

The purpose of entering both a.d.a. and enrollment in Part B is to aid the district (or county office) to select the enrollment data corresponding to a.d.a. data submitted for the same period.

The enrollment you enter in this part will be for the same period, for the same classes, and programs, and it will be grouped the same as the a.d.a. you reported earlier on your J-22-P1 for the period July 1–December 31, 1968. Your J-22-P1 a.d.a. has been reproduced in column 1 of Part A, and after you copy this a.d.a. onto the designated lines in column 2 of Part B, enter on each appropriate line or lines in column 1 of Part B, the number of enrolled minors whose attendance was used in computing the particular a.d.a. you entered in the adjacent column. Any minor whose attendance was divided among more than one a.d.a. amount is to be counted in the corresponding enrollment for each a.d.a.	Enter the number of minors enrolled during the period whose attendance was used in computing the a.d.a. entered in column 2.	Enter a.d.a. from Part A on the particular lines in this column, as specified in Part A, column 2.	Enter the number of minors included in the enrollment entered on the same line in column 1 who have been identified as multi-handicapped.
	1	2	3

(REPRODUCED FROM STATE FORM)

ENROLLMENT FOR PHYSICALLY HANDICAPPED IN SPECIAL DAY CLASSES

HEARING HANDICAPPED

A. In classes for deaf only
1. In integrated classes 040
2. In self-contained classes 041
3. Total (Sum of lines 40 and 41) 042

B. In classes for severely hard of hearing only
1. In integrated classes 043
2. In self-contained classes 044
3. Total (Sum of lines 43 and 44) 045

C. In classes for both deaf and severely hard of hearing
1. Deaf in classes for both
   a. In integrated classes 046
   b. In self-contained classes 047
2. Severely hard of hearing in classes for both
   a. In integrated classes 048
   b. In self-contained classes 049
3. Total (Sum of lines 46 through 49) 050

VISION HANDICAPPED

D. In classes for blind only
1. In integrated classes 051
2. In self-contained classes 052
3. Total (Sum of lines 51 and 52) 053

E. In classes for partially seeing only
1. In integrated classes 054
2. In self-contained classes 055
3. Total (Sum of lines 54 and 55) 056

Similar enrollment data are collected on subsequent pages of this document for:

- Additional physically handicapped in special day classes
- Physically handicapped in programs other than special day classes
- Blind who receive certain additional services
- Mentally retarded and educationally handicapped

D5-20133 FOR STATE SUPERINTENDENT

GENERAL INSTRUCTIONS

1. School districts and county superintendents of schools are required by Education Code sections 6911 through 6946 to report the enrollment of physically handicapped, mentally retarded, and educationally handicapped pupils. This Form D-1, "First Period Enrollment Report for Special Programs," is provided for reporting such enrollments.

2. A separate Form D-1 is to be filed for each grade level for which a Form J-22-P1, "First Period Report for Special Programs," was submitted.

   a. The elementary level should include kindergarten and grades one through eight if a kindergarten is maintained and pupils in grades seven and eight do *not* attend a junior high school. If pupils in grades seven and eight attend a junior high school, the elementary level should include kindergarten and grades one through six only.

   b. High school districts that maintain junior high schools should report grades seven through twelve.

   c. Unified school districts should file a separate report for each level, using the same guidelines cited for elementary districts and high school districts.

   d. County superintendents of schools should file a separate report for each grade level for which they provide special education services.

Enrollment to be reported

3. Pupils receiving special education services provided by a school district other than that of residence or in classes conducted by the office of the county superintendent of schools should be reported only in the enrollment of the school district or office of the county superintendent of schools actually providing the services.

   In the case of physically handicapped minors being educated in public or private schools under the provisions of Education Code sections 6871–73 (tuition paid to parent or guardian), the district of residence will report the enrollment.

   The enrollment to be reported on Form D-1, Part B, is to include all minors enrolled at any time during the period whose attendance was used in the computation of a.d.a. reported on Form J-22-P1 for the period July 1 through December 31, 1968.

   The enrollment to be reported in Part C is that enrollment for the period for which a.d.a. was *not* included in the J-22-P1. Any minor enrolled in more than one special education class or program is to be reported for each such class or program.

Instructions for completing parts A, B, and C, and the Certification

4. a. PART A. The a.d.a. data reported on Form J-22-P1 are provided in column 1 of Part A and are to be entered in column 2 of Part B. Part A is to be completed and returned by *all* districts and county superintendents of schools.

   b. PART B. When the a.d.a. data have been entered in column 2, as specified in instructions given in Part A, the number of minors enrolled at any time during the period whose attendance was used in the computation of each such a.d.a. is to be entered on appropriate lines in column 1. Districts that did not provide any special education services need not return Part B.

   c. PART C. Report the number of minors enrolled in programs for the mentally gifted and the number of handicapped minors enrolled whose attendance was *not* used in the computation of any a.d.a. reported on Form J-22-P1. Any minor enrolled in more than one special education class or program is to be reported for each such class or program. Districts that did not have such enrollments during the period need not return Part C.

   d. CERTIFICATION. If either Part B or Part C is returned, the certification on page 6 must be completed and returned.

DISTRICT RESPONSIBILITY

5. The city or district superintendent shall:

   a. Prepare the Form D-1 in triplicate. If a J-22-P1 was submitted for the elementary grades and another for the secondary grades, a corresponding Form D-1 shall be prepared for each such J-22-P1.

   b. Return only those parts (A, B, and C) applicable to the district. (See instruction 4.) Complete Part A by checking the appropriate box to indicate which parts are being returned.

   c. Transmit the original and one copy to the county superintendent of schools not later than April 30, 1969. Retain one copy for the district files.

COUNTY SUPERINTENDENT'S RESPONSIBILITY

6. The county superintendent of schools shall take all steps necessary to ensure the submission of Form D-1 by *all* school districts in the county.

7. With respect to each Form D-1 receiv[illegible] or district superintendent, the county [illegible]:

   a. Examine the Form D-1 [illegible] at the district's report is in[illegible], he shall cause it to be c[illegible]g or certifying the report.

   b. Verif[illegible] of enrollment in special [illegible] completing the certification on [illegible]king the appropriate box on Part A [illegible] parts of Form D-1 that are included in [illegible]s report.

   [illegible]ansmit the original not later than June 30, 1969, to Max Rafferty, Superintendent of Public Instruction, Attention of the Bureau of Systems and Data Processing, 721 Capitol Mall, Sacramento, California 95814. He shall retain the copy for the county files.

(REPRODUCED FROM STATE FORM)

8. With respect to the preparation of Form D-1 for reporting enrollment in classes and programs provided by his office, the county superintendent shall:

   a. Prepare the Form D-1 in duplicate. If a J-22-P1 was submitted for the elementary grades and another for the secondary grades, a corresponding Form D-1 shall be prepared for each such J-22-P1.

   b. Return only those parts (A, B, and C) applicable to the county. (See instruction 4.) If either Part B or Part C is completed, he shall complete and return the certification on page 6.

(Continued on reverse of PAGE 2)

c. Transmit the original not later than June 30, 1969, to Max Rafferty, Superintendent of Public Instruction, Attention of the Bureau of Systems and Data Processing, 721 Capitol Mall, Sacramento, California 95814. Retain the copy for the county files.

NOTE: Subsequent to the printing of Part A, revision of the Form D-1 resulted in the deletion of what was to have been Part D.

CODE REFERENCES

A. Definition of category

1. Deaf—California Administrative Code, Title 5, Section 191.3(a)

   Severely hard of hearing—California Administrative Code, Title 5, Section 191.3(b)

   Moderately hard of hearing—California Administrative Code, Title 5, Section 191.3(c)

   Blind—California Administrative Code, Title 5, Section 191.3(d)

   Partially seeing—California Administrative Code, Title 5, Section 191.3(e)

   Orthopedic or other health impaired—California Administrative Code, Title 5, Section 191.3(f)

   Aphasic—California Administrative Code, Title 5, Section 191.3(g)

   Speech handicapped—California Administrative Code, Title 5, Section 191.3(h)

   Pregnant girls—California Administrative Code, Title 5, Section 195

2. Educable mentally retarded—Education Code Section 6902; California Administrative Code, Title 5, Section 182

   Trainable mentally retarded—Education Code Section 6903; California Administrative Code, Title 5, Section 197

3. Educationally handicapped—Education Code Section 6750; California Administrative Code, Title 5, Section 221

B. Definition of program

1. Physically handicapped
   a. Special class
      (1) Integrated—California Administrative Code, Title 5, Section 191.4(a)(1)
      (2) Self-contained — California Administrative Code, Title 5, Section 191.4(a)(2)
      (3) Teleclass — California Administrative Code, Title 5, Section 191.4(a)(3)
   b. Regular day classes—California Administrative Code, Title 5, Section 191.4(b)(1)
   c. Remedial physical education—California Administrative Code, Title 5, Section 191.4(b)(2)(B)
   d. Other remedial—California Administrative Code, Title 5, Section 191.4(b)(2)(A)
   e. Other individual instruction—California Administrative Code, Title 5, Section 191.4(b)(4)
   f. Individual instruction in mobility—California Administrative Code, Title 5, Section 191.4(b)(3)
   g. Reader service, braille books, recordings, and so forth—Education Code Section 18102(3)(e)

2. Mentally retarded
   a. Educable (special training school or class)—Education Code Section 6902; California Administrative Code, Title 5, sections 182–188
   b. Trainable (special training school or class)—Education Code Section 6903; California Administrative Code, Title 5, sections 196–199.5

3. Educationally handicapped
   a. Special class—Education Code Section 6751; California Administrative Code, Title 5, Section 227(a)
   b. Learning disability group—Education Code Section 6751; California Administrative Code, Title 5, Section 227(b)
   c. Individual instruction—Education Code Section 6751; California Administrative Code, Title 5, sections 221–233

4. Development centers for handicapped minors—Education Code sections 16645.1–16645.25

(REPRODUCED FROM STATE FORM)

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CALIFORNIA STATE
DEPARTMENT OF EDUCATION
FORM D-1, PART C (NEW 3-69)

FIRST PERIOD ENROLLMENT REPORT FOR SPECIAL PROGRAMS

CODE					

(Enter from Part A.)

Part C

For the period beginning July 1, 1968, and ending December 31, 1968

District name ..... County .....

(REPRODUCED FROM STATE FORM)

		Number of minors enrolled.	Enter the number of minors included in the enrollment entered on the same line in column 1 who have been identified as multi-handicapped.
		1	2
ENROLLMENT OF MENTALLY GIFTED PUPILS IN SPECIAL PROGRAMS			
U. Mentally gifted minors			
1. Pupils participating for one semester (Enter in column 1 the number of participating pupils from Part A, line 30)	120		
2. Pupils participating for one school year (Enter in column 1 the number of participating pupils from Part A, line 31)	121		
3. Total (Sum of lines 120 and 121)	122		
ENROLLMENT OF OTHER HANDICAPPED MINORS FOR WHICH A.D.A. WAS NOT REPORTED IN THE J-22-P1			
V. In development centers for handicapped minors			
Total enrollment	123		
W. Pupils for whom tuition at a public or private nonsectarian school is paid by district to parent or guardian			
1. Deaf	124		
2. Severely hard of hearing	125		
3. Moderately hard of hearing	126		
4. Blind	127		
5. Partially seeing	128		
6. Orthopedic or other health impaired	129		
7. Speech	130		
8. Aphasic	131		
9. Total (Sum of lines 124 through 131)	132		
X. Pupils in regular day classes *only*, who have been identified as handicapped but did *not* receive special education services as needed (while on waiting list or for any other reason)			
1. Deaf	133		
2. Severely hard of hearing	134		
3. Moderately hard of hearing	135		
4. Blind	136		
5. Partially seeing	137		
6. Orthopedic or other health impaired	138		
7. Speech	139		
8. Aphasic	140		
9. Educable mentally retarded	141		
10. Educationally handicapped	142		
11. Total (Sum of lines 133 through 142)	143		

California State Department of Education
Form D-2 (New 3/69)

REPORT OF HANDICAPPED MINORS WHOSE APPLICATIONS FOR ENROLLMENT IN A SCHOOL, SPECIAL CLASS, OR PROGRAM WERE DENIED; AND REPORT OF HANDICAPPED MINORS NOT CONTINUING IN ATTENDANCE AFTER ADMISSION

For the Period Beginning July 1, 1968, and Ending December 31, 1968

Page _____ of _____ pages

District code					

(Enter from Form D-1.)

District name _____ County _____

Name of handicapped minor	*See reverse for instructions for completing columns 2 through 5.*				Handicap *(Enter code number.)*			Reason for denial or exclusion *(Enter code number.)*			If referred to another agency, enter name of agency.
	Home or mailing address of minor	Name of parent or guardian	Date of birth	Sex	Major	Other	MH				
1	2	3	4	5	6a	6b	6c	7a	7b	7c	8
1.											
2.											
3.											
4.											
5.											
6.											
7.											
8.											
9.											
10.											
11.											
12.											
13.											
14.											
15.											
16.											

17. Report the number of handicapped minors listed above who are: Negro ___; Oriental ___; American Indian ___; Spanish Surnamed ___; Other (White, and so forth) ___; Total for page ___

(REPRODUCED FROM STATE FORM)

Instructions for completing columns 2 through 5

Pupils in regular day classes who have been *officially identified* as speech handicapped, mentally retarded, educationally handicapped, and so forth, and who are awaiting enrollment in special education programs are to be reported. In reporting such pupils, districts are not required to complete columns 2 through 5. However, columns 2 through 5 must be completed for all other minors.

Instructions for completing columns 6a through 7c

Enter in column 6a the number given below which identifies the major handicap of the minor; enter in column 6b the number which identifies the next most serious handicap, if any. Enter "X" in column 6c if the minor is multihandicapped *as defined* in the Instructions for Completing Form D-2. Make these identifications on the basis of any available information.

HANDICAP CODES

21 Educationally handicapped

Mentally retarded

22 Educable mentally retarded
23 Trainable mentally retarded
24 Subtrainable mentally retarded

Physically handicapped

25 Deaf
26 Severely hard of hearing
27 Moderately hard of hearing
28 Blind
29 Partially seeing
30 Orthopedic or other health impaired
31 Speech handicapped
32 Aphasic
33 Pregnant girls

(REPRDUCED FROM STATE FORM)

Enter in column 7a the number for the major reason for denial of admission; if there is a secondary reason, enter the number for that reason in column 7b.

DENIAL OF ADMISSION CODES

40 On waiting list for vacancy
41 No program available
42 Application withdrawn
43 Parents failed to enroll child
44 Too mentally retarded
45 Too emotionally disturbed
46 Too feeble or ill
47 Too immature
48 Lacked bowel control
49 Lacked bladder control
50 Not sufficiently handicapped to qualify

Enter in column 7c the number for the reason the minor is no longer in attendance.

EXCLUSION CODES

60 Severance
61 Expulsion
62 Exclusion
63 Exemption
64 Suspension beyond ten school days
65 Dropped out

CERTIFICATION

This certification must be completed *once* for each Form D-2 submitted. For districts with more than 16 pupils to report, the certification need be completed only on the last page of the report.

To the County Superintendent of Schools:

I hereby certify that, to the best of my knowledge and belief, this report is complete, correct, and compiled in accordance with all laws, regulations and instructions.

[Signed] _____

_____
Title

_____
District

_____
Date

To the State Superintendent of Public Instruction:

I hereby certify that I have examined this report and believe it to be complete, correct, and compiled in accordance with all laws, regulations, and instructions.

[Signed] _____

_____
County

_____
Date

INSTRUCTIONS FOR COMPLETING FORM D-2
REPORT OF HANDICAPPED MINORS WHOSE APPLICATIONS FOR ENROLLMENT IN A SCHOOL, SPECIAL CLASS, OR PROGRAM WERE DENIED; AND REPORT OF HANDICAPPED MINORS NOT CONTINUING IN ATTENDANCE AFTER ADMISSION

1. Report Required

Education Code sections 6942(b) and 6944 require school districts and county superintendents of schools to report each handicapped minor who has been denied admission to special education programs; Education Code Section 12104 requires that upon the severance of attendance of any child who is physically handicapped, mentally retarded, or multiple handicapped, each private school and public school district shall report such severance, expulsion, exclusion, exemption, drop out, or suspension beyond ten schooldays. This report, Form D-2, shall be for the period beginning July 1, 1968, and ending December 31, 1968.

2. Distribution of Form D-2

Each school district and each county superintendent of schools will receive one set (original and two copies) of Form D-2. In addition, each county superintendent of schools will receive a supply of Form D-2 for distribution to districts that have more than 16 pupils to report for the period. The county superintendent of schools is responsible for ordering additional sets of Form D-2 from the Division of Special Schools and Services, California State Department of Education, if the original supply is inadequate.

3. District's Responsibility

Form D-2 is to be prepared in triplicate. If a Form D-1, "First Period Enrollment Report for Special Programs," was submitted for the elementary grades and another for the high school grades, prepare a corresponding Form D-2 for each such Form D-1 submitted.

Each district shall report all handicapped minors who were denied admission to special education programs or whose attendance in such programs was severed during the period July 1 through December 31, 1968. Districts that have no pupils to report shall enter only the district name and code, complete the certification, and transmit the original and one copy of the report to the county superintendent of schools not later than April 30, 1969.

4. County Superintendent's Responsibility

The county superintendent of schools shall examine and approve the district's report, retain the copy for the county files, and transmit the original to Max Rafferty, Superintendent of Public Instruction, Attention of the Bureau of Systems and Data Processing, 721 Capitol Mall, Sacramento, California, 95814, not later than June 30, 1969.

With respect to special education programs maintained by the county for handicapped minors, the county superintendent shall, as of June 30, 1969, also report all minors who were denied admission to the programs and those whose attendance in the programs was severed during the period July 1 through December 31, 1968.

If a Form D-1, "First Period Enrollment Report for Special Programs," was submitted for the elementary grades and another for the high school grades, the county superintendent shall prepare a corresponding Form D-2 for each such Form D-1 submitted.

5. Minors to be Included in This Report

Physically handicapped - all minors between three and twenty-one years of age, except those who were denied admission because they had completed the program for grade twelve specified for such minors

Educable mentally retarded – all minors between five years nine months and twenty-one years of age, except those who were denied admission because they had completed the program for grade twelve specified for such minors

Trainable mentally retarded – all minors between five and eighteen years of age (If enrolled in an approved occupational training program, the age extends to the minor's twenty-first birthday.)

Educationally handicapped - all minors between four years nine months and eighteen years of age, except those who were denied admission because they had completed the program for grade twelve specified for such minors

6. Handicapped defined

Educationally handicapped – Education Code Section 6750; California Administrative Code, Title 5, Section 221

Educable mentally retarded - Education Code Section 6902; California Administrative Code, Title 5, Section 182

Trainable mentally retarded – Education Code Section 6903; California Administrative Code, Title 5, Section 197

Subtrainable mentally retarded – Any minor who does not have the intellectual capacity necessary for admission to a class for the trainable mentally retarded

Deaf – California Administrative Code, Title 5, Section 191.3(a)

Severely hard of hearing – California Administrative Code, Title 5, Section 191.3(b)

Moderately hard of hearing – California Administrative Code, Title 5, Section 191.3(c)

Blind – California Administrative Code, Title 5, Section 191.3(d)

Partially seeing – California Administrative Code, Title 5, Section 191.3(e)

Orthopedic or other health impaired – California Administrative Code, Title 5, Section 191.3(f)

Speech handicapped – California Administrative Code, Title 5, Section 191.3(h)

Aphasic – California Administrative Code, Title 5, Section 191.3(g)

Pregnant girls - California Administrative Code, Title 5, sections 191.3(i)(1) and 195

Multihandicapped – A minor who has two or mo[illegible] najor handicaps, as defined in Education Code Se[illegible] (a), which preclude his being served by any [illegible] l, or program authorized

(REPRODUCED FROM STATE FORM)

SF8-145 4-69 15M

CALIFORNIA STATE
DEPARTMENT OF EDUCATION
FORM NO. J-22-F1 (REV. 9-68)

FIRST PERIOD REPORT FOR SPECIAL PROGRAMS

For the Period Beginning July 1, 19 ____, and Ending December 31, 19____

Grade span_____ through_____
(lowest) (highest)

_____School District_____County

FOR STATE USE ONLY

CODE NO.					

SECTION I. NUMBER OF DAYS TAUGHT Number of days taught in regular classes for period of this report (exclude summer school and extended special classes) . . . . . _____

SECTION II. ATTENDANCE FOR PHYSICALLY HANDICAPPED (Enter totals in columns 1 through 3 for classes in categories listed below.)

(REPRODUCED FROM STATE FORM)

	DISTRICT ENTRY				For State Use Only
	Total number of classes with a.d.a. of one-half or more of prescribed maximum (See instruction 1 for Section II.)	Total average daily attendance of such special classes or programs		Aggregate number of days taught in such classes in excess of days taught in regular classes (See Gen. Instr. 6.)	
		Whole number	Decimal		
	1	2		3	
Special Day Classes					
HEARING HANDICAPPED					
A. DEAF					
1. Classes with age range of approximately three through eight years					
a. With a.d.a. of 2.5 or more					
b. With a.d.a. of less than 2.5					
2. Classes with age range of approximately nine through twenty years					
a. With a.d.a. of 3.5 or more					
b. With a.d.a. of less than 3.5					
B. SEVERELY HARD OF HEARING					
1. Classes with age range of approximately three through eight years					
a. With a.d.a. of 3.5 or more					
b. With a.d.a. of less than 3.5					
2. Classes with age range of approximately nine through twenty years					
a. With a.d.a. of 4.5 or more					
b. With a.d.a. of less than 4.5					
C. BOTH DEAF AND SEVERELY HARD OF HEARING					
1. Classes with age range of approximately three through eight years					
a. With a.d.a. of 2.5 or more					
b. With a.d.a. of less than 2.5					
2. Classes with age range of approximately nine through twenty years					
a. With a.d.a. of 3.5 or more					
b. With a.d.a. of less than 3.5					

Similar attendance data are collected in other sections on subsequent pages of this document for:

- Mentally Retarded
- Educationally Handicapped
- Mentally Gifted Minors
- Transportation of Certain Handicapped Children

THIS SAME REPORTING PROCEDURE IS USED FOR THE SECOND PERIOD REPORT

CALIFORNIA STATE DEPARTMENT OF EDUCATION
FORM NO. J-26.1 (Rev. 4-69) SPECIAL EDUCATION SUPPLEMENT

(For State Use Only)
CODE

(FOR PHYSICALLY HANDICAPPED SPECIAL DAY CLASSES) _____ School District

A. ATTENDANCE INFORMATION
(See Instruction 4.)

Enter only whole numbers in these columns.

	Hearing handicapped 1	Vision handicapped 2	Orthopedically handicapped or other health impaired 3	Aphasic 4	Pregnant girls 5
A.1. Total fiscal year a.d.a. in each program					
A.2. Total number of special day classes by program as of the end of the fiscal year					
A.3. Number of pupils enrolled by program as of the sixth school month					

(REPRODUCED FROM STATE FORM)

B. EXPENDITURES
Account Class

100. Administration	$		$	$	$
200. Instruction					
211. Principals' Salaries					
212. Supervisors' Salaries					
213. Teachers' Salaries					
214. Other Certificated Salaries of Instruction					
220. Classified Salaries					
230. Textbooks					
240. Other Books					
290. Other Expenses of Instruction					
400. Health Services					
500. Pupil Transportation					
600. Operation of Plant					
700. Maintenance of Plant					
800. Fixed Charges					
TOTAL CURRENT EXPENSE OF PROGRAM					
1200. Capital Outlay					
Other expenses not included in above*					
Total B. Total expenditures for this program					
892. Rental Expense Included in 800–Fixed Charges					
1260. Equipment Included in 1200–Capital Outlay					

Similar education expense and income data are collected for:

- Physically handicapped (integrated), regular day classes (other), remedial and individual instruction, and special blind allowance
- Mentally retarded and educationally handicapped programs
- Mentally gifted minors, special transportation of certain handicapped pupils.

C. GENERAL FUND INCOME BY PROGRAM
Account Class

90. Incoming Transfers (Tuition) .....

D. CERTIFICATED PERSONNEL
(See Instruction 9.)

Total number of full-time equivalent teachers in this program .....

Total number of full-time equivalent psychologists in this program .....

Total number of full-time equivalent social workers in this program .....

Total number of full-time equivalent counselors in this program .....

*Attach detailed explanation.

Pf8-150 1512-300 5-69 5,500

POPULATION CENSUS STANDARD FORM

WICHE JOINT DATA COLLECTION PROJECT

1967

D5-29

(REPRODUCED FROM STATE FORM)

1. ADMISSION NUMBER

1 2 3 4 5 6 7 8 9

2. WARD NUMBER

1 2 3 4 5 6 7 8 9

3. DATE OF FIRST KNOWN ADMISSION

MONTH | YEAR

1 2 3 4 5 6 7 8 9

4. COUNTY ADMITTED FROM

1 2 3 4 5 6 7 8 9 UNKNOWN

5. BIRTH DATE

NO. | DAY | YEAR

1 2 3 4 5 6 7 8 9 UNKNOWN

6. MULTIPLE BIRTH

WAS THE RESIDENT

- A SINGLE BIRTH?
- A FRATERNAL TWIN?
- AN IDENTICAL TWIN?
- OTHER MULTIPLE BIRTH?
- UNKNOWN

7. RELATIVES IN A MENTAL INSTITUTION

- BROTHER/SISTER
- PARENT
- GRANDPARENT
- UNCLE/AUNT
- COUSIN
- MORE THAN ONE OF THE ABOVE
- UNKNOWN

8. LATEST IQ OR SQ

1 2 3 4 5 6 7 8

9. TYPE OF TEST

- WAIS, WISC OR WECHSLER-BELLEVUE
- BENET (1937, 1960)
- CATTELL
- PEABODY
- GESELL
- LEITER
- VINELAND
- OTHER SQ SCALES
- 'R IQ SCALES
- NOT TESTED

10. DATE OF LATEST TEST

1 2 3 4 5 6 7 8 9 UNKNOWN

11. LEVEL OF RETARDATION
(AAMD CLASSIF.)

- NORMAL
- BORDERLINE
- MILD
- MODERATE
- SEVERE
- PROFOUND
- UNKNOWN

12. DIAGNOSIS
(TWO DIGIT AAMD CODE)

1 2 3 4 5 6 7 8 9 UNKNOWN

13. RELIGION

- PROTES-TANT
- ROMAN CATHOLIC
- ORTHODOX
- JEWISH
- LATTER DAY SAINT
- BUDDHIST
- SHINTO
- MOSLEM
- OTHER
- UNKNOWN

14. RACE

- WHITE
- NEGRO
- SPANISH AMERICAN
- INDIAN
- ORIENTAL
- POLY-NESIAN
- MIXED
- UNKNOWN

15. LEGAL STATUS
(AT THIS TIME)

RESIDENT OF RECORD

- VOLUNTARY RESIDENT
- COURT COMMITMENT
- OTHER
- UNKNOWN

16. SHOULD RESIDENT BE CONSIDERED FOR SCHOOL PROGRAM NEXT YEAR

- DEFINITELY YES
- POSSIBLY YES
- NO
- UNKNOWN

17. SCHOOL ATTENDANCE

- PRESCHOOL
- TRAINABLE
- EDUCABLE
- ADULT EVENING CLASSES
- POST SCHOOL VOCATIONAL TRAINING/ SHELTERED WORKSHOPS
- SPECIAL SCHOOL PROGRAMS
- NOT ATTENDING
- UNKNOWN

18. SPECIAL EDUCATION PROGRAMS FOR THE HANDICAPPED

- BLIND
- DEAF AND HARD OF HEARING
- PHYSICAL HANDICAP
- SPEECH
- EMOTIONALLY DISTURBED
- MORE THAN ONE
- NOT ATTENDING
- UNKNOWN

19. WEIGHT
(LBS.)

3 4 5 6 7 8 9 UNKNOWN

20. HEIGHT
(INS.)

2 3 4 5 6 7 8 9 UNKNOWN

21. AMBULATION

- NO DIFFICULTY
- LIMPS
- WALKS ONLY WITH ASSISTANCE (WALKERS, CRUTCHES, PERSONS)
- UNABLE TO WALK, BUT NOT A BED PATIENT (CRAWLS, USES WHEEL CHAIR, ETC.)
- UNABLE TO WALK (BED PATIENT, CRIB BOUND)
- UNKNOWN

22. VISION
(WITH GLASSES IF NEEDED)

- NO DIFFICULTY
- DIFFICULTY
- NO USEABLE VISION

HAS THE RESIDENT EVER BEEN REFERRED FOR MEDICAL EVALUATION OF HIS VISION?

- YES
- NO
- UNKNOWN

23. HEARING
(WITH HEARING AID IF NEEDED)

- NO DIFFICULTY
- DIFFICULTY
- NO USEABLE HEARING

HAS THE RESIDENT EVER BEEN REFERRED FOR MEDICAL EVALUATION OF HIS HEARING?

- YES
- NO
- UNKNOWN

24. DRESSING ABILITY

- DRESSES SELF COMPLETELY
- REQUIRES LITTLE HELP
- REQUIRES MUCH HELP
- MUST BE COMPLETELY DRESSED
- UNKNOWN

25. ARM-HAND

USE IN SELF CARE

- FULL USE
- FULL USE-ONE SIDE ONLY
- NO USE
- UNKNOWN

OPTION

0 1 2 3 4 5 6 7 8 9

(REPRODUCED FROM STATE FORM)

2-1. ADMISSION NUMBER

26. SEIZURES
- NONE OBSERVED AND NO HISTORY
- HISTORY, BUT NONE OBSERVED
- OBSERVED ONCE A MONTH OR MORE
- OBSERVED LESS THAN ONCE A MONTH
- UNKNOWN

27. DRUGS
- IS THE RESIDENT REGULARLY GETTING MEDICATION FOR:
- SLEEPING PROBLEMS
- SEIZURES
- BEHAVIOR PROBLEMS
- OTHER DISORDERS
- NONE
- UNKNOWN

28. COMMUNICATION 29.
- COMMUNICATES TO OTHERS
- SPEECH UNDERSTANDABLE BY A STRANGER
- SPEECH SOMEWHAT DIFFICULT TO UNDERSTAND
- MAKES NEEDS KNOWN BY SOUNDS OR SIGNS
- NO MEANINGFUL COMMUNICATION:
- JABBERS-NO WORDS OR COMMUNICATION
- MAKES NO SOUNDS
- UNKNOWN
- UNDERSTANDS COMMUNICATION FROM OTHERS
- UNDERSTANDS ORAL COMMUNICATION
- HAS DIFFICULTY UNDERSTANDING ORAL COMMUNICATION
- RESPONDS ONLY TO GESTURES AND OR SIGNS
- DOES NOT RESPOND TO GESTURES AND/OR SIGNS
- UNKNOWN

30. ORAL HYGIENE
- BRUSHES OWN TEETH
- TEETH BRUSHED BY OTHERS
- HAS BAD GUMS BLEEDS.
- HAS BAD TEETH
- HAS NO TEETH
- WEARS DENTURES
- SEES DENTIST ROUTINELY
- UNKNOWN

31. FEEDING
- FEEDS SELF WITH:
- KNIFE, FORK & SPOON
- SPOON
- HANDS ONLY
- FED BY OTHERS
- RESIDENTS ONLY
- RESIDENTS, EMPLOYEES, VOLUNTEERS
- EMPLOYEES ONLY
- UNKNOWN

32. NUTRITION
- REGULAR DIET (SOLID)
- GROUND DIET
- SPECIAL DIETS:
- WEIGHT CONTROL
- MEDICAL TREATMENT
- UNKNOWN

33. GROOMING
- STAYS NEAT & CLEAN WITHOUT HELP
- CAN REMAIN NEAT & CLEAN WITH PROMPTING
- MAKES NO ATTEMPT TO STAY NEAT & CLEAN
- UNKNOWN

34. TOILET TRAINING
- BOWEL AND BLADDER TRAINED
- INDEPENDENT USE OF TOILET
- MAKES TOILET NEEDS KNOWN
- PARTIALLY TRAINED RESPONDS TO TRIP SCHEDULE, BUT SOME DAYTIME UNTIDINESS
- NOT TRAINED AT ALL
- NO RESPONSE TO TRAINING
- TRAINING HAS NOT YET BEGUN
- HAS PHYSICAL DISABILITY WHICH PREVENTS TRAINING
- HAS LIMITED MENTAL ABILITY PREVENTING TRAINING
- UNKNOWN

35. NIGHT BEDWETTING
- NEVER OR INFREQUENTLY WETS BED
- OCCASIONALLY WETS
- USUALLY WETS
- UNKNOWN

36. CANDIDATE FOR WARD HELPER
- ALREADY ON PROGRAM
- DEFINITELY YES
- POSSIBLY YES
- NO
- UNKNOWN

37. CANDIDATE FOR DETAIL WORK PROJECT
- ALREADY ON PROGRAM
- DEFINITELY YES
- POSSIBLY YES
- NO
- UNKNOWN

38. WORK REWARD SYSTEM
- IS RESIDENT PAID FOR WORK
- YES
- NO
- DOESN'T WORK
- UNKNOWN

39. BEHAVIOR

NEVER	SELDOM	OCCASIONALLY	FREQUENTLY	UNKNOWN
HYPERACTIVE				
SELF DESTRUCTIVE				
SEXUAL ACTIVITY OTHERS-SAME SEX				
EXPOSES SELF				
SMEARS FECES				
DESTROYS CLOTHING				
UPSETS FURNITURE				
REQUIRES MECHANICAL RESTRAINTS BELTS, TIES, ETC.				

NEVER	SELDOM	OCCASIONALLY	FREQUENT	UNKNOWN
AGGRESSIVE				
PASSIVE KEEPS TO SELF!				
MASTURBATES PUBLICLY				
MOLESTS CHILDREN				
ATTACKS EMPLOYEES				
DESTROYS WARD PROPERTY				
RUNS AND PACES				

NEVER	SELDOM	OCCASIONALLY	FREQUENT	UNKNOWN
LIKELY TO ESCAPE				
MASTURBATES PRIVATELY				
SEXUAL ACTIVITY OTHERS-OPPOSITE SEX				
REFUSES TO WEAR CLOTHES				
ATTACKS RESIDENTS				
BREAKS WINDOWS				
BANGS ON DOORS WHEN SECLUDED				

40. SEX
- MALE
- FEMALE
- UNKNOWN

41. FAMILY CARE
FOSTER HOME GROUP COMMUNITY CARE COMMUNITY PLACEMENT
- ALREADY REFERRED FOR/ON PROGRAM
- DEFINITELY YES
- POSSIBLY YES
- NO
- UNKNOWN

42. NURSING HOME CARE
- ALREADY REFERRED FOR/ON PROGRAM
- DEFINITELY YES
- POSSIBLY YES
- NO
- UNKNOWN

43. COULD RESIDENT BE PLACED OUT
ON WORK LEAVE WORK PLACEMENT/ DAY WORK LEAVE
- ALREADY REFERRED FOR/ON PROGRAM
- DEFINITELY YES
- POSSIBLY YES
- NO

44. LETTERS & PACKAGES
APPROX. HOW OFTEN DID RESIDENT RECEIVE LETTERS OR PACKAGES FROM FAMILY DURING THE LAST 12 MONTHS
- NEVER
- WEEKLY
- MORE THAN ONCE A WEEK
- EVERY OTHER WEEK
- MONTHLY
- EVERY OTHER MONTH
- 3 OR 4 TIMES A YEAR
- ONCE OR TWICE A YEAR
- UNKNOWN

45. VISITORS
APPROX. HOW OFTEN DID RESIDENT HAVE VISITORS DURING THE LAST 12 MONTHS
- NEVER
- WEEKLY
- MORE THAN ONCE A WEEK
- EVERY OTHER WEEK
- MONTHLY
- EVERY OTHER MONTH
- 3 OR 4 TIMES A YEAR
- ONCE OR TWICE A YEAR
- UNKNOWN

46. HOME LEAVE
APPROX. HOW OFTEN DID RESIDENT GO ON HOME LEAVE OWN FAMILY DURING THE LAST 12 MONTHS
- NEVER
- WEEKLY
- MORE THAN ONCE A WEEK
- EVERY OTHER WEEK
- MONTHLY
- EVERY OTHER MONTH
- 3 OR 4 TIMES A YEAR
- ONCE OR TWICE A YEAR
- UNKNOWN

47. HOW LONG HAVE YOU KNOWN RESIDENT?
- LESS THAN ONE WEEK
- 1 WEEK-1 MONTH
- 1 MONTH-1 YEAR
- 1 YEAR OR MORE

48. YOUR TITLE OR CLASSIFICATION
- R.N.
- L.P.N.
- ATTENDANT
- PSYCHIATRIC TECHNICIAN
- OTHER

(REPRODUCED FROM STATE FORM)

DATE

STUDENT NAME

STUDENT DATA TRANSMITTAL
EDUCATIONAL DATA PROCESSING CENTER

1. INDICATE CHANGES OR ADDITIONS IN RED ABOVE BOXES TO BE CORRECTED.
2. CHECK TYPE OF TRANSACTION MADE ON THIS TRANSMITTAL.

1. NEW ENROLLEE _____
2. CHANGE _____
3. WITHDRAWAL _____

(3) COUNTY	(4) DISTRICT	(7) SCHOOL	(8) STUDENT NUMBER	SCHOOL NAME

(X) STUDENT NAME - LAST, FIRST, MIDDLE	(42) BIRTH DATE	(43)	(44) ENROLLED/LEFT DATE	(31)	(32)	(36) HM. RM.	(33) COUNSELOR - TEACHER	(34) CO.	(35) DIST.	

A

RESIDENCE ATTEND

(5) STREET ADDRESS	(6) CITY	(39) ZIPCODE	(40) HOME TELEPHONE NO.

B

ACTUAL BEGINNING ATT. MONTH (1)

(2)	(3)	(7)	(8)	(2)	(5)	(4)	(4)				

COURSE SEQUENCE NUMBER

C

(4) BIRTHPLACE-STATE

(X) PARENT OF GUARDIAN NAME	(42) IF PARENT NOT HOME CONTACT	(40) TELEPHONE NO.	(2)	(3) HEALTH	(2) PL 874	(3)	(3)

D

IN CASE OF EMERGENCY

REASON FOR WITHDRAWAL _____

WITHDRAWAL DATE _____ MO. _____ DAY _____ YR

LAST SCHOOL MONTH ATTENDED _____

REDPIO MFI (9-67)

TEMPORARY CLAS...

PERIOD	COURSE TITLE	COURSE NO.	TEACHER	SCHOOL NO.

	STUDENT NO.	STUDENT NAME	GRADE LEVEL	WEEK ( )					WEEK ( )					WEEK ( )					WEEK ( )				
				M	T	W	TH	F	M	T	W	TH	F	M	T	W	TH	F	M	T	W	TH	F
1																							
2																							
3																							
4																							
5																							
6																							
7																							
8																							
9																							
10																							
11																							
12																							
13																							
14																							
15																							

(REPRODUCED FROM STATE FORM)

CLASS RECORD

PERIOD	COURSE TITLE	COURSE NO.	TEACHER	SCHOOL NO.	DATE

	STUDENT NO.	STUDENT NAME	GRADE LEVEL	MARKING PERIOD			SEMESTER				REMARKS
				FIRST	SECOND	***	GRADE				
1											
2											
3											
4											
5											
6											
7											
8											
9											
10											
11											
12											
13											
14											
15											

D5-32

ATTENDANCE GATHERING DOCUMENT
(REGIONAL CENTER COPY)

INSTRUCTIONS

USE A NUMBER 2 PENCIL ONLY.

1. STUDENTS MAY NOT BE ADDED TO, OR DELETED FROM THIS FORM.
2. PLEASE DO NOT USE STAPLES, PAPER CLIPS, OR RUBBER BANDS ON THIS DOCUMENT.
3. MARK ONLY ONE CONDITION PER STUDENT FOR ANY GIVEN DAY.
   I = ILLNESS A = ABSENCE OTHER THAN ILLNESS N = NOT ENROLLED
4. ERASE CHANGES OR CORRECTIONS COMPLETELY.

EXAMPLE:

JONES, JOHN J.

WEEK	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
1	I A N	I A N	I A N	I A N	I A N
2	I A N	I A N	I A N	I A N	I A N
3	I A N	I A N	I A N	I A N	I A N
4	I A N	I A N	I A N	I A N	I A N

STUDENT NAME	WEEK	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	DO NOT MARK IN THIS COLUMN
	1	I A N	I A N	I A N	I A N	I A N	0 1 2 3 4 5 6 7 8 9
	2	I A N	I A N	I A N	I A N	I A N	
	3	I A N	I A N	I A N	I A N	I A N	
	4	I A N	I A N	I A N	I A N	I A N	
	1	I A N	I A N	I A N	I A N	I A N	0 1 2 3 4 5 6 7 8 9
	2	I A N	I A N	I A N	I A N	I A N	
	3	I A N	I A N	I A N	I A N	I A N	
	4	I A N	I A N	I A N	I A N	I A N	
	1	I A N	I A N	I A N	I A N	I A N	0 1 2 3 4 5 6 7 8 9
	2	I A N	I A N	I A N	I A N	I A N	
	3	I A N	I A N	I A N	I A N	I A N	
	4	I A N	I A N	I A N	I A N	I A N	
	1	I A N	I A N	I A N	I A N	I A N	0 1 2 3 4 5 6 7 8 9
	2	I A N	I A N	I A N	I A N	I A N	
	3	I A N	I A N	I A N	I A N	I A N	
	4	I A N	I A N	I A N	I A N	I A N	
	1	I A N	I A N	I A N	I A N	I A N	0 1 2 3 4 5 6 7 8 9
	2	I A N	I A N	I A N	I A N	I A N	
	3	I A N	I A N	I A N	I A N	I A N	
	4	I A N	I A N	I A N	I A N	I A N	
	1	I A N	I A N	I A N	I A N	I A N	0 1 2 3 4 5 6 7 8 9
	2	I A N	I A N	I A N	I A N	I A N	
	3	I A N	I A N	I A N	I A N	I A N	
	4	I A N	I A N	I A N	I A N	I A N	
	1	I A N	I A N	I A N	I A N	I A N	0 1 2 3 4 5 6 7 8 9
	2	I A N	I A N	I A N	I A N	I A N	
	3	I A N	I A N	I A N	I A N	I A N	
	4	I A N	I A N	I A N	I A N	I A N	
	1	I A N	I A N	I A N	I A N	I A N	0 1 2 3 4 5 6 7 8 9
	2	I A N	I A N	I A N	I A N	I A N	
	3	I A N	I A N	I A N	I A N	I A N	
	4	I A N	I A N	I A N	I A N	I A N	
	1	I A N	I A N	I A N	I A N	I A N	0 1 2 3 4 5 6 7 8 9
	2	I A N	I A N	I A N	I A N	I A N	
	3	I A N	I A N	I A N	I A N	I A N	
	4	I A N	I A N	I A N	I A N	I A N	
	1	I A N	I A N	I A N	I A N	I A N	0 1 2 3 4 5 6 7 8 9
	2	I A N	I A N	I A N	I A N	I A N	
	3	I A N	I A N	I A N	I A N	I A N	
	4	I A N	I A N	I A N	I A N	I A N	
	1	I A N	I A N	I A N	I A N	I A N	0 1 2 3 4 5 6 7 8 9
	2	I A N	I A N	I A N	I A N	I A N	
	3	I A N	I A N	I A N	I A N	I A N	
	4	I A N	I A N	I A N	I A N	I A N	
STUDENT NAME	WEEK	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	DO NOT MARK IN THIS COLUMN

(REPRODUCED FROM STATE FORM)

MARK GATHERING DOCUMENT

TEACHER	PERIOD	COURSE TITLE	COURSE NUMBER	SCHOOL NUMBER	DATE	PAGE

USE A NUMBER 2 PENCIL ONLY

STUDENTS MAY NOT BE ADDED TO, OR DROPPED FROM, THIS FORM.

1. DO NOT USE STAPLES, PAPER CLIPS, OR RUBBER BANDS ON THIS DOCUMENT.
2. BLACKEN EACH STUDENT'S QUARTER MARK IN ONE OF THE BOXES PROVIDED ON THE "Q" LINE.
3. AT THE END OF THE SEMESTER ALSO BLACKEN EACH STUDENT'S MARK ON THE "S" LINE.
4. A PLUS (+) OR MINUS (-) BOX MAY BE MARKED AS PART OF A QUARTER AND/OR SEMESTER MARK.
5. BLACKEN THE NM (NO MARK) BOX IF STUDENT IS NO LONGER ENROLLED IN THIS CLASS.
6. A MAXIMUM OF THREE (3) COMMENT BOXES MAY BE BLACKENED FOR EACH STUDENT.
7. ERASE CHANGES OR CORRECTIONS COMPLETELY.

EXAMPLE:

JONES, JOHN J. A B C D F I NM + - 0 1 2 3 4 5 6 7 8 9

MARK CODES

A - OUTSTANDING ACHIEVEMENT
B - GOOD ACHIEVEMENT
C - SATISFACTORY ACHIEVEMENT
D - MINIMUM ACHIEVEMENT
F - FAILURE DUE TO UNSATISFACTORY ACHIEVEMENT
I - INCOMPLETE DUE TO JUSTIFIABLE ABSENCE
NM - NO MARK
NM+ - PASS

COMMENT CODES

0 - STUDENT IS DOING EXCELLENT WORK.
1 - CITIZENSHIP IS SATISFACTORY.
2 - STUDENT IS IMPROVING IN THIS COURSE.
3 - STUDENT IS ACHIEVING BELOW APPARENT ABILITY.
4 - POOR ATTENDANCE IS AFFECTING SCHOOL WORK.
5 - BOOKS OR MATERIALS ARE NOT BROUGHT TO CLASS.
6 - ASSIGNMENTS ARE NOT COMPLETED REGULARLY.
7 - STUDY HABITS NEED IMPROVING.
8 - CITIZENSHIP IS UNSATISFACTORY
9 - PLEASE CONTACT TEACHER THROUGH COUNSELOR.

STUDENT NAME		MARK	COMMENT	STUDENT NUMBER
	Q	A B C D F I NM + -	0 1 2 3 4	
	S	A B C D F I NM + -	5 6 7 8 9	
	Q	A B C D F I NM + -	0 1 2 3 4	
	S	A B C D F I NM + -	5 6 7 8 9	
	Q	A B C D F I NM + -	0 1 2 3 4	
	S	A B C D F I NM + -	5 6 7 8 9	
	Q	A B C D F I NM + -	0 1 2 3 4	
	S	A B C D F I NM + -	5 6 7 8 9	
	Q	A B C D F I NM + -	0 1 2 3 4	
	S	A B C D F I NM + -	5 6 7 8 9	
	Q	A B C D F I NM + -	0 1 2 3 4	
	S	A B C D F I NM + -	5 6 7 8 9	
	Q	A B C D F I NM + -	0 1 2 3 4	
	S	A B C D F I NM + -	5 6 7 8 9	
	Q	A B C D F I NM + -	0 1 2 3 4	
	S	A B C D F I NM + -	5 6 7 8 9	
	Q	A B C D F I NM + -	0 1 2 3 4	
	S	A B C D F I NM + -	5 6 7 8 9	
	Q	A B C D F I NM + -	0 1 2 3 4	
	S	A B C D F I NM + -	5 6 7 8 9	
	Q	A B C D F I NM + -	0 1 2 3 4	
	S	A B C D F I NM + -	5 6 7 8 9	
	Q	A B C D F I NM + -	0 1 2 3 4	
	S	A B C D F I NM + -	5 6 7 8 9	
	Q	A B C D F I NM + -	0 1 2 3 4	
	S	A B C D F I NM + -	5 6 7 8 9	
	Q	A B C D F I NM + -	0 1 2 3 4	
	S	A B C D F I NM + -	5 6 7 8 9	
	Q	A B C D F I NM + -	0 1 2 3 4	
	S	A B C D F I NM + -	5 6 7 8 9	
	Q	A B C D F I NM + -	0 1 2 3 4	
	S	A B C D F I NM + -	5 6 7 8 9	
	Q	A B C D F I NM + -	0 1 2 3 4	
	S	A B C D F I NM + -	5 6 7 8 9	
	Q	A B C D F I NM + -	0 1 2 3 4	
	S	A B C D F I NM + -	5 6 7 8 9	
	Q	A B C D F I NM + -	0 1 2 3 4	
	S	A B C D F I NM + -	5 6 7 8 9	
	Q	A B C D F I NM + -	0 1 2 3 4	
	S	A B C D F I NM + -	5 6 7 8 9	
	Q	A B C D F I NM + -	0 1 2 3 4	
	S	A B C D F I NM + -	5 6 7 8 9	
	Q	A B C D F I NM + -	0 1 2 3 4	
	S	A B C D F I NM + -	5 6 7 8 9	
	Q	A B C D F I NM + -	0 1 2 3 4	
	S	A B C D F I NM + -	5 6 7 8 9	
	Q	A B C D F I NM + -	0 1 2 3 4	
	S	A B C D F I NM + -	5 6 7 8 9	
	Q	A B C D F I NM + -	0 1 2 3 4	
	S	A B C D F I NM + -	5 6 7 8 9	

(REPRODUCED FROM STATE FORM)

TABLE 1
SUMMARY OF DATA DEVELOPMENT STATUS
CALIFORNIA

DATA ELEMENTS			LOCAL PUBLIC SCHOOL			STATE SCHOOLS UNDER DEPT. OF EDUCATION			HOSPITALS UNDER DEPT. OF MENTAL HYGIENE			PRIVATE SCHOOL DATA
			CURRENT STATUS	METHOD OF DEVELOPMENT	SOURCE OF DATA	CURRENT STATUS	METHOD OF DEVELOPMENT	SOURCE OF DATA	CURRENT STATUS	METHOD OF DEVELOPMENT	SOURCE OF DATA	
NUMBER OF CHILDREN IDENTIFIED AS NEEDING SPECIAL EDUCATION	ENROLLED	AGE	Not available	Modify Form D-1 to obtain summary by age or, if teacher survey is to be annual, request summary by age from each teacher	School district superintendent through county superintendent or special education teacher	Exists within automated records of children	Produce cross tabulations	Bureau of Biostatistics	Available by grade only	Request by age; could include these schools in annual teacher survey	Individual schools or teachers	Reported only if parent or guardian of child is receiving a tuition payment from the local district
		HANDICAPPING CONDITION	Available for first half of year on Form D-1, Part B and on Dec. 1969 teacher survey									
		EDUCATION PROGRAM										
	ON WAITING LIST	AGE	Exists for first half of year on Form D-2 but not by age and not tabulated	Validate and tabulate data	School district superintendent through county superintendent	Not available	Should not be attempted unless list is current and valid	Individual hospitals, or each hospital through Bureau of Biostatistics	Not available	Should not be attempted unless list is current and valid	Individual schools	Not currently available; would have to be reported on a voluntary basis
		HANDICAPPING CONDITION										
NUMBER OF CHILDREN MOVING INTO AND OUT OF IDENTIFIED HANDICAPPED CHILD POPULATION	NEWLY DIAGNOSED AS NEEDING SPECIAL EDUCATION	AGE	Exists but not transmitted to Division of Special Education	Develop matrix form to request data in tabular form	Admissions committee of local school district	Exists but not transmitted to Division of Special Education	Develop matrix form to request data in tabular form as per a cooperative agreement to report the data	Person responsible for diagnosis and admission at each state hospital	Exists but not reported to Division of Special Education	Develop matrix form to request data in tabular form	Person responsible for diagnosis and educational placement at each school	
		HANDICAPPING CONDITION										
	INTRA-STATE TRANSFERS	AGE				Not available			Not available			
		HANDICAPPING CONDITION										
	ATTRITION FROM THE IDENTIFIED HANDICAPPED POPULATION	AGE	Only first half of year gross totals for enrolled and waiting list on Form D-2	Request 2nd half of year data and add reason codes for "return to normal education" and "moved" if desired; tabulate	School district superintendent through county superintendent	Exists within automated records of children for enrolled population	Tabulate when updating enrollments and waiting list	Bureau of Biostatistics	Exists for enrolled population only	Tabulate when updating enrollments and waiting list	Individual schools	Required by law to report attrition on Form D-2
		HANDICAPPING CONDITION										
		REASON										
YEARLY PROJECTIONS OF THE CHILD POPULATION, BY AGE			Available	Not applicable	Population research unit, Dept. of Finance							
DATA USED TO SIMULATE SPECIAL EDUCATION	EDUCATION PROGRAM MIX TRENDS		Available as defined by legislation, policy, and planning	Not applicable	Chief, Division of Special Education, his Bureau Chiefs and their staff of consultants	Exists but not transmitted to Division of Special Education	Cooperative agreement to transmit information	Bureau of Rehabilitation and Education	Available as defined by legislation, policy, and planning	Not applicable	Chief, Division of Special Education, his Bureau Chiefs and their staff of consultants	Not currently available, would have to be reported on a voluntary basis
	TYPES OF PERSONNEL AND PERSONNEL/PUPIL CONTACT RATIOS	TARGET GROUP										
		EDUCATION PROGRAM										
OPTIONAL: NUMBER OF SPECIAL EDUCATION PERSONNEL EMPLOYED, BY TYPE			Not available on a continuing basis	Annual teacher survey, to include information about paraprofessionals	Special education teacher	Same as above	Same as above	Same as above	Exists but not reported	Request information	Individual schools or teachers	Same as above

COLORADO STATE ANALYSIS REPORT

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The research reported herein was performed pursuant to Contract No. OEC 0-9-08928-0710 with the Bureau of Education for the Handicapped, Office of Education, U.S. Department of Health, Education, and Welfare. Contractors undertaking such projects under Government sponsorship are encouraged to express freely their professional judgment in the conduct of the project. The points of view or opinions stated do not, therefore, necessarily represent official Bureau position or policy.

COLORADO STATE ANALYSIS REPORT

I. INTRODUCTION

Sponsored by the Bureau of Education for the Handicapped (BEH), Operations Research, Inc. (ORI) has developed a mathematical model that provides the framework for systematic consideration and evaluation of major elements contributing to the determination of special education manpower needs. The model has been designed for application by state education agencies and, when fully implemented, will assist each state in the systematic prediction of its own special education manpower needs, based upon individual state educational characteristics. The model will simulate present and future manpower needs under varying assumptions regarding changes in personnel/pupil contact ratios, the educational program mixes, the child participation rate, or any combination of these variables.

Following development of this Manpower Requirements Projection Model, a visit was made to each of the 50 state special education agencies in order to familiarize the states with the objectives of the program and to conduct a survey of current state information flow procedures. The purpose of the survey was to review and analyze the capability and potential for utilization of this model by the state agencies responsible for the education of handicapped children. The survey included an analysis of:

a. The capability of existing information flow processes to provide the necessary model input data

b. The existing automatic data processing capability to process the model program, and

c. The special education staff capability and desire to utilize the model.

This report presents the findings of the survey in the State of Colorado and contains recommendations pertaining to the establishment of information flow procedures for model utilization as well as to the improvement of general information availability for special education program management. The data development status is summarized in Table 1 at the end of this report.

II. SUMMARY

The Colorado Division of Special Education receives substantial data on the state public school special education programs for handicapped children and is familiar with electronic data processing equipment in analyzing its data. There would be some need of redesigning existing reporting forms of the division and one or two new forms would have to be developed in order to secure all of the data required by the Manpower Requirement Projection Model.

The Division of Special Education appears to have an excellent working arrangement with the Department of Institutions which is responsible for special education programs outside the public schools. All of the information received by the Division of Mental Health and the Division of Mental Retardation, of the Department of Institutions, is available to the Division of Special Education. It may be necessary to develop a new data reporting form for the Department of Institutions to obtain some data elements.

Because of some unique characteristics of Colorado's special education program, a good information flow may take several years to develop. Later documents pertaining to this project contain more information about methods which may be used to estimate some of the data elements until a good information flow is developed and validated.

The data processing hardware available for lease by the Special Education Division has the capability of handling both the model data processing program and the programmed model itself. There would be a definite problem in implementing the proposed model, however, if additional federal funds are not available for this purpose.

III. RESPONSIBILITIES FOR SPECIAL EDUCATION

The responsibility for the education of handicapped children in Colorado is illustrated in the informal organization chart shown in Figure 1. Only those organizations having educational or informational service functions for handicapped children have been shown. The Colorado Division of Special Education has the legal responsibility for public school special education programs for the following handicapped groups:

a. Visually handicapped
b. Aurally handicapped
c. Educationally handicapped
d. Educable mentally retarded
e. Speech handicapped
f. Physically handicapped.

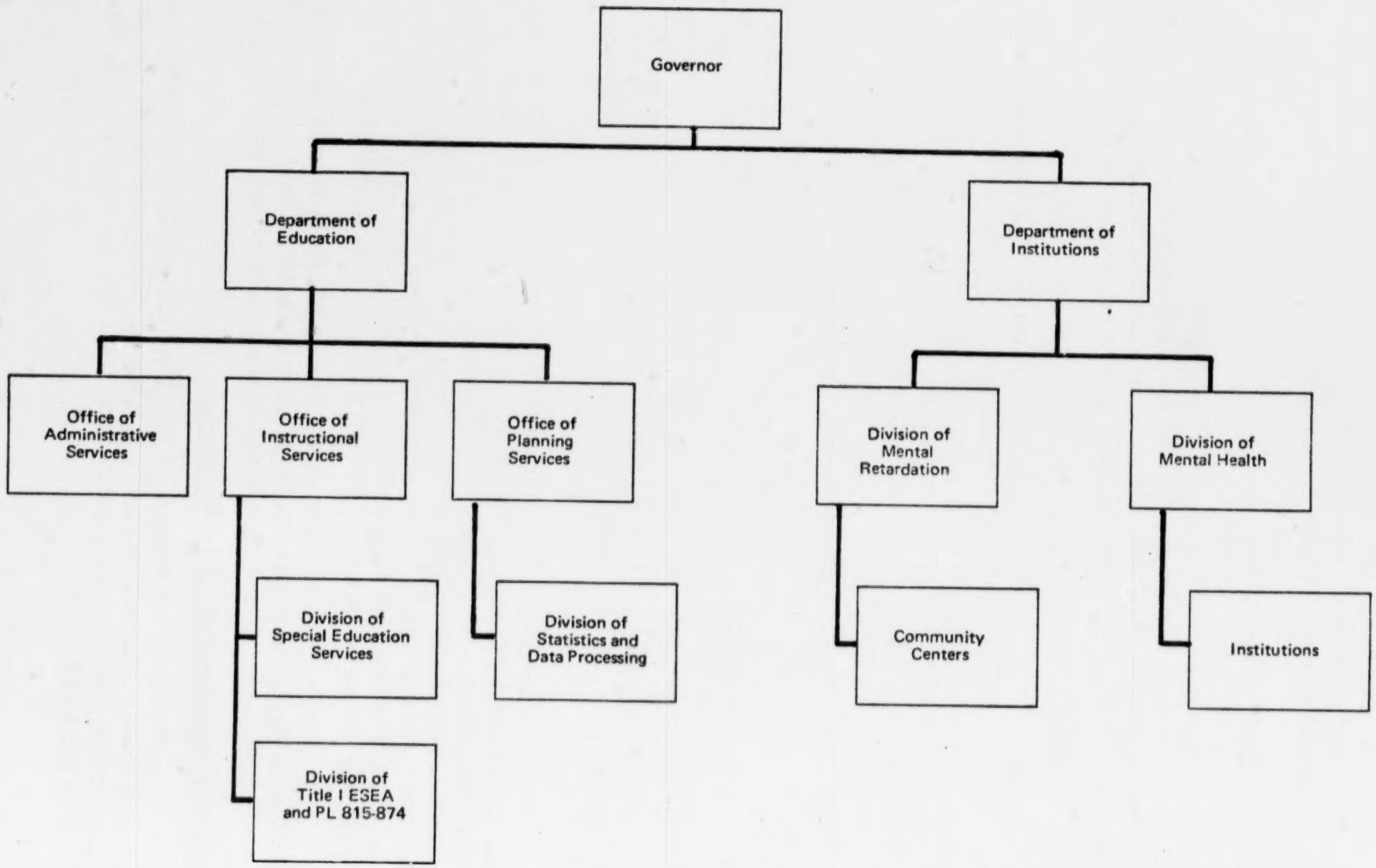

FIGURE 1. ORGANIZATION OF SPECIAL EDUCATION IN COLORADO

The Colorado Department of Institutions, Division of Mental Retardation has responsibility for the 23 community centered programs for trainable mentally retarded children, while the Division of Mental Health has responsibility for emotionally disturbed and mentally retarded children in institutions.

IV. DATA ELEMENT EVALUATION

Some specific data elements are necessary to the use of the projection model. The information which these data elements provide may also be very useful to the Division of Special Education for other operational analyses. These data elements and their potential sources are discussed in the following paragraphs.

Number of Children Identified As Needing Special Education

Enrolled. Every year the local administrator of special education in Colorado must file applications with the Division of Special Education for state approval of programs for handicapped children in his district. The number of handicapped children, by single year of age, within each handicapped group, who are enrolled in each special education program, can be obtained from application #CDE Form 4-07-69 (Figure 2).

These data for residential special classes (institutions) and community centers for trainable mentally retarded are also currently available. Information on institutional special education programs is supplied by the superintendents of the institutions and published in the "Annual Report of the Division of Mental Retardation" (see Section X, page D6-16), while data on the community centers are available from the "Annual Report on Community Centers for Mentally Retarded."

Waiting List. This information is only available for all mentally retarded children in Denver. Outside of Denver, the waiting list data are very limited.

The Director of Special Education believes that those school districts that currently have waiting lists would provide their data to the State Division of Special Education. He does not feel that this information is complete since districts that cannot raise their share of funds to meet the special educators' salaries are reluctant to engage in extensive diagnostic efforts. Obviously, such reluctance is greatest in those districts where no special education program currently exists. (See Section VII, "RECOMMENDATIONS".)

The waiting lists of institutions are currently available and published in the "Annual Report of the Division of Mental Retardation." Community centers for the mentally retarded do not forward waiting lists to any state agency.

Unidentified Handicapped Child Population

An estimate of the number of children, by handicapping conditions and educational level, who will be newly diagnosed in the near future cannot be based on current referral lists, since such lists are not maintained at the state level nor at the local level.

COLORADO DEPARTMENT OF EDUCATION

PART V – APPLICATION FOR APPROVAL OF SPECIAL EDUCATION SERVICES

PUPIL LIST

(Complete one list for each teacher)

COUNTY _____ DISTRICT NO. _____ SCHOOL _____

NAME OF TEACHER _____ CLASS LEVEL(S) _____ DATE _____

CLASSROOM ☐ ITINERANT ☐ RESOURCE ☐

AREA OF HANDICAP: AURAL ☐ EMH ☐ EH ☐ PHYSICAL ☐ VISUAL ☐

PUPIL'S NAME	AGE	ADMISSION INFORMATION					DISTRICT NO. OF NON-RESIDENTS
		NAME OF TEST	DATE TEST WAS GIVEN	I.Q. SCORE	PSYCHOLOGIST NAME	PSYCHOLOGIST AGENCY	
1.							
2.							
3.							
4.							
5.							
6.							
7.							
8.							
9.							
10.							
11.							
12.							
13.							
14.							
15.							

DETACH BEFORE WRITING ON THIS WORKSHEET

(REPRODUCED FROM STATE FORM)

D6-5

154

4-07-69

FIGURE 2

It should be noted that the State of Colorado presently uses modified national prevalence rates for planning purposes. These modified rates have been derived from CEC Journal articles as well as from the experience gained in developing special education programs in areas of Colorado where no program existed. (See footnote under Section VII for comment on prevalence rates.)

Number of Children Moving Into And Out Of The Handicapped Child Population

In order to obtain the number of children who have been newly diagnosed as needing special education, new reporting directives would have to be developed and issued by the Division of Special Education and the Division of Mental Retardation. (See Section VII, "RECOMMENDATIONS".)

In addition to children newly diagnosed as handicapped each year by diagnostic clinics or schools, it is possible that school programs will acquire children who have been diagnosed or identified as handicapped previously in other school districts or other parts of the state. Rather than reporting these children again as newly diagnosed (which could distort the incidence picture in the state), these intra-state transfers should be reported separately. Because no mechanism exists to monitor these transfers into special education programs, one would have to be developed by the Special Education Division. This could be accomplished by modifying Form #CDE 2-03-69 (Figure 3) to enable respondents to indicate which children reported that year had transferred into their program from another special education program in the state. These intra-state transfers could then be tabulated fairly simply from these enrollment forms when received.

State residential schools and community centers could also be asked to indicate intra-state transfers into their programs, as part of the enrollment data that the Special Education Division would be requesting each year for inclusion in the model.

In order to obtain the data on the number of children who attrited from the identified handicapped population, the Division of Special Education would have to modify the same reporting form as above. The Division would also have to query those school districts that maintain current waiting lists in order to learn of those children that dropped off the lists because they (a) left the state, (b) died, (c) became too old to be classed as children.

State residential schools and community centers could also be asked to indicate attritions from their special education programs.

General Population Projections

The projected number of children in the general population, by single year of age, for each year for which special education manpower projections are to be made, presents little problem in data collection since Title VI project applications require this information, at least for the coming fiscal year. Projections required by the model are also available for future years and, applying incidence rates, once established, to the number of new entrants, should present no difficulty.

COLORADO DEPARTMENT OF EDU

(REPRODUCED FROM STATE FORM)

INSTRUCTIONS FOR COMPLETING
SECTION V - SPECIAL EDUCATION

End of Year Repo

.epare and distribute the following copies on or before July 15:

Original and 1 copy: Division of Statistics and Data Processing
Colorado Department of Education
1 copy: County Superintendent of Schools
(if applicable)
1 copy: District File Copy

1. All pages indicate the salaries of teachers and other personnel only for the period July 1 through June 30. Salaries should be the exact amount extracted from the accounting payroll records.

2. Pages 29, 30, 31, 32, 33, and 35 indicate in the proper blanks name of the teacher or other personnel, number of months that the salary was paid, grade level of the children with whom the person worked (K-6, 7-9, 10-12), type of class (classroom, itinerant, resource), the membership of the class on the closing day of school, total number of children enrolled in the class during the school year, and finally the salary paid.

3. For carry over salaries for July and August of personnel no longer with the program, place the name and salary at the bottom of the page under the heading, "July and August". (See sample sheet.)

4. Page 34, Speech Correctionists. Indicate in the proper blanks the name of the correctionist, number of months that salary was paid, the grade level of children served, the full time equivalent (F.T.E.) of the correctionist, the average weekly case load (count each child only once). A correctionist employed full time is one (1) full time equivalent; two days per week is 2/5 F.T.E.

5. Pages 36 and 37, Home and Home/Hospital Instruction. Indicate in the proper blanks the name of the teacher, number of pupils instructed, hours of instruction, rate of pay per hour, and total amount paid.

6. Pages 38, 39, and 40, Psychologists, Social Workers, and Psychiatrists. Indicate in the proper blanks the name of the professional, the agency he/she is employed by (if by your school district indicate the word district), amount of fee or salary paid by school district, amount claimed for special education evaluation, amount claimed for special education consultation, and total claimed. (The sum of claimed evaluation plus claimed consultation.) (See Chapter III, Administrative Procedures for the Special Education Programs.)

7. Page 41, is for transportation provided exclusively for handicapped children. Aggregate daily attendance shall be for the year just completed and for handicapped pupils transported, only. Be sure to compute how you ascertained the cost in Item 3 and compute Item 5 in the block provided on the bottom.

8. See also - Administrative Procedures for the Special Education Programs, especially Chapter VI.

CDE FORM 2 03-69
REPLACES SES 3

FIGURE 3

Data Used to Simulate Special Education

Trends in the proportionate number of children served in each educational program, by target group, are available for public school special education programs, community center programs, and special education programs in institutions.

The personnel/pupil contact ratios for the types of public school personnel, in direct contact with the children in each target group in special education programs, is another data item that is readily available from the Division of Special Education.

For state residential schools, the recommended personnel/pupil ratios are determined by the Superintendents of the individual institutions. In most instances, the curriculum is determined, teachers are hired, and the number of children in each class is determined on an individual basis for each teacher. The actual ratios, therefore, may be far from the recommended ratios. This may also be the case in each of the private schools serving handicapped in the state.

For state residential schools, recommended personnel/pupil ratios will have to be obtained from each of these schools through the Department of Institutions. Likewise, ratios used in private schools, which are not now known at the state level, will have to be requested from each of these schools.

Employment by Personnel Types

From the "Application for Reimbursement of Special Education Services Personnel List," the Division of Special Education has a record of all special education personnel in the public schools of Colorado. Most of this information is also available from the Certified Personnel Forms (CP-1) of the Colorado Department of Education, Division of Statistics and Data Processing. In order to use the data on the CP-1 forms for manpower projections, however, the subject area coding would have to be changed from 78-Special Education to 78-Visually Handicapped, 79-Aurally Handicapped, 80-Educationally Handicapped, 81-Mentally Retarded, 82-Speech Handicapped, 83-Physically Handicapped (see Section X, page D6-15).

If this personnel information were desired by the Department of Institutions, a new form for institutions and community centers for the trainable mentally retarded may be required.

V. PROCESSING POTENTIAL

Hardware

There is adequate hardware available to the Division of Special Education to process the data and accommodate the projection model. The Department of Education, through its Division of Statistics and Data Processing, uses the Colorado Department of Administration's IBM 360/50, as well as its programming and keypunching services.

Personnel

The programming and keypunching resources are adequate to support the manpower requirements projection model. Similarly, the Division of Statistics and Data Processing has the required staff to use the model and interpret its results.

Acceptance of Model Concept

The Division of Special Education and the Department of Institutions were very interested in the proposed model and expressed a desire to see the model implemented in Colorado. The Division of Statistics and Data Processing felt that there would be no problem in coordinating its activities with the other two agencies in developing the information flow and processing the data serving as the input to the model, provided that the Division of Special Education had sufficient funds for this purpose.

VI. ADDITIONAL FACTORS

The Director of Special Education is eager to establish the information flow and processing capability necessary to implement the model. The Director does not feel, however, that these procedures could be developed with existing resources. Colorado's current level of Title VI funds, for example, are insufficient to implement the proposed system, according to the Director.

In some of the Colorado counties (and thus the local districts), it is difficult to organize special education programs because they are sparsely populated. Even in urban areas of Colorado, the local special education programs are not serving the majority of the handicapped population because current local and state funds are inadequate. This lack of local special education services, in light of mandatory legislation, has some implications on the development of a statewide information system and the data required by the model. One is that, due to lack of local service, parents and teachers are not encouraged to have handicapped children diagnosed unless they might be eligible for admission to a special education program; thus, even in the future, special education waiting list data would underestimate the unserved handicapped child population, which would therefore include an unknown number of unidentified children. Data on the rate at which children are diagnosed as needing special education in those districts, then, will not reflect the actual new incidence of handicapping conditions.

VII. RECOMMENDATIONS

As a result of the interviews with those individuals responsible for special education programs in Colorado, the actions necessary for implementing the Manpower Requirements Projection Model can be recommended. First, the two state agencies accountable for special education programs must close the data gaps between current data availability and the amount of data required by the model. In order to close the data gap, the Division of Special Education must develop a form to capture information on those children that have been newly diagnosed as needing special education but are not currently being served by a special education program. All school district superintendents should be required

to complete this form and supply the data by the fall of each year. Because of the high level of effort imposed on the superintendents by this task, considerable emphasis must be placed on the importance of collecting this data by the Division of Special Education. 1/

The local district in Colorado is recommended as the source of this data because it is there that a child is processed deemed eligible for special education. Cooperative directives could be issued between the Department of Education and each of the other agencies involved in diagnosing the children (Division of Mental Health of the Department of Institutions, and the Division of Mental Retardation of the Department of Institutions) to affect the reporting of these newly diagnosed children to the applicable local district by child name, age, address, parent name, and handicapping condition. The chief school officer or his representative responsible for special education (e.g., a director of special education) in each local district could then be queried for individual children's names and records or for totals by age and handicapping condition of those children who are newly certified as needing special education.

If the latter query method is chosen, a simple matrix form, one by handicap and age, could be used by the local districts in a hash-mark fashion to record the children as they are reported to the district, either as newly diagnosed or as intra-state transfers. See Figure 4 for an example of such a form. This form could then be forwarded to the state Special Education Division at the end of the year. Such data need not be reported to the state by child name unless the enrollment and waiting list data are also reported by child name. If data are being reported by name and an automated list of the identified handicapped children is being sent to the local districts, it would be preferable to have that list updated, with new entrants and attritions (also discussed below) noted, and a copy forwarded to the state at the end of the year.

The foregoing methods for collecting data on entrants to the handicapped child population, places the reporting burden on the local school district. While this procedure requires considerable effort from the local superintendents, doing it any other way greatly increases the possibility of double counting.

It is also recommended that the Division of Special Education add a page to CDE Form 2-03-69, "Application for Reimbursement of Special Education Services", to enable teachers to indicate the children that had transferred into their program from another special education program in the state during the year. This listing must show the age and specific handicapping condition of such transferred children.

1/ During the time that is required to develop reliable data on the unserved child population, the Division of Special Education may choose to utilize estimates of this population from past experience and published CEC articles. Using such prevalence rates is only an interim method of estimating the total handicapped child population. These rates are a starting point for such an estimation, but to be useful in the long run, (not only for applying the model but for other state planning purposes), they should be validated with actual data. Such validation can be done by collecting appropriate data and making successive approximations. Later documents pertaining to this project will contain more detailed descriptions of alternative methods of validating these rates.

Newly Diagnosed			
Handicapping Condition / Age / Source	Trainable Mentally Retarded		Deaf
	Mental Retardation Center	Institution	Institu
2	III	IIIII I	
3			
4			
5			
6		IIIII IIIII	
7			
8			
9			

FIGURE 4. EXAMPLE OF MATRIX FORM TO COLLECT LOCAL DISTRICT DATA ABOUT NEW ENTRANTS TO HANDICAPPED CHILD POPULATION AND EXAMPLE OF HASH-MARK ENTRIES

This same form (#2-03-69) must also be modified, by adding another page, to include the number of handicapped children that attrited from public school special education programs, according to age and handicapping condition. At the same time, the Division should query those school districts that maintain current waiting lists to learn of those children that left the lists because of (a) leaving the state, (b) death, or (c) becoming too old to be elibible for public school special education.

The Division of Special Education must also request intra-state pupil transfer data and attrition data from the Department of Institutions, concerning its special education programs in the institutions and community centers. The Department of Institutions may choose to develop a new reporting device or simply modify an existing form.

The last recommendation for implementing the projections model concerns the actual processing of the data. Because of the availability of adequate hardware to the Division of Special Education, it is recommended that the Department of Institutions supply its hard copy information to the Division of Statistics and Data Processing within the Department of Education for keypunching, in order that it be used by the model program.

VIII. RESOURCE REQUIREMENTS—MANPOWER

It is estimated that the system design and implementation phase will require approximately 2 man-months of special education staff effort, $\frac{1}{2}$ man-month for forms design, 2 man-months for systems analyst work and 1 man-month for programming, over a period of 24 to 30 months.

System maintenance will probably require about $1\frac{1}{2}$ man-months of combined effort annually.

IX. PERSONS INTERVIEWED

The persons interviewed by the ORI (Leasco) representative, Mr. Jeffrey Koshel, during the week of September 8, 1969 were:

Dr. John Ogden	Director, Division of Special Education
Mr. Robert Little	Director, Division of Statistics and Data Processing
Mr. Marvin Meyers	Director, Trainable Mentally Retarded, Department of Institutions
Mr. Lee Brooks	Consultant, Speech and Aurally Handicapped
Mr. Richard Champion	Consultant, Visually Handicapped and Physically Handicapped
Mrs. Marguerite M. Lynch	Consultant, Educationally Handicapped
Mr. David Miles	Consultant, Title VI A
Mrs. Betty K. Mitchell	Consultant, Educable Mentally Handicapped
Mr. Donald Moriarity	Consultant, Deaf-Blind Center
Mrs. Lynne M. Murphy	Consultant, Statistics and Data Processing, Division of Data Processing
Mr. Anthony Paulmeno	Education and Inservice
Mr. Dale Polley	Consultant, School Psychology
Mr. Charles J. Reynolds	Principal Clerk
Mr. Seymour E. Wallach	Consultant, Educable Mentally Retarded
Miss Sue Wheat	Consultant, School Social Worker

X. ADDITIONAL REPORT FORMATS

The following reporting forms have been mentioned in this report and presented here for reference purposes

Form CP-1, Certified Personnel

State of Colorado Data Collection for Mentally Retarded Residents Form

COLORADO DEPARTMENT OF EDUCATION

CERTIFICATED PERSONNEL 1969-70 40477

COUNTY MONTROSE COUNTY CODE 43 DISTRICT FILE NO. 2180 LEGAL NO. P.E-1.1

1 LAST NAME	2 FIRST NAME	3 MIDDLE INITIAL	4 MAIDEN NAME	5 SOCIAL SECURITY NUMBER	6 SEX	7 MARITAL STATUS	8 BIRTH DATE MO	DAY	YR	9 ETHNIC GROUP	TRANS CODE
MERRILL	JOAN	L		385-62-7901	F	1	07	03	41	5	
STEVENSON			MERRILL			2					

10 NAME OF SCHOOL OR BLDG. WHERE ASSIGNED	11 SCHOOL CODE	12A POSITION	12B POSITION	12C POSITION	13A FUNCTION	13B FUNCTION	13C FUNCTION	14A SCOPE	14B SCOPE	14C SCOPE	15 LEVEL	16 DAILY PREP	17 CREDITS FOR NEXT CERT
WASHINGTON ELEM	15268	17			1A			1			2-2	45	5
					1G						2-3		10

18 WORK DAYS	19 PART TIME	20 REGULAR SALARY	21 ADD. SALARY	22 EMPLOY STATUS	23 EXPERIENCE THIS DISTRICT	OTHER COLORADO	OUT OF STATE	TOTAL	27 PREVIOUS YEAR'S EMPLOY	RESIDENCE	CERT HELD	30 ISSUED MO.	YR.	31 EXPIRES MO.	YR.	32 ISSUED BY	33 LEVEL AUTH.	34 COLLEGE PREP.
180		6150		1	2		1	3	1	15	41	06	65	06	70	4	1	2
		6350		2	3			4										

35 INSTITUTION FIRST DEGREE	36 INSTITUTION CODE	37 FIRST DEGREE	38 DEG. CODE	39 YR. DEG.	40 INSTITUTION HIGHEST DEGREE	41 INSTITUTION CODE	42 HIGHEST DEGREE	43 DEG. CODE	44 YR. DEG.
ADAMS STATE COLL	15-0010	AB	04	65	ADAMS STATE COLL	15-0010	AB	03	65
			03						

CITY AND STATE CITY AND STATE

THE DEPT. OF EDUCATION FINDS YOU QUALIFIED IN THE FOLLOWING:

45 SUBJECT AREA ASSIGNED	46 SUBJECT CODE	47 SEM. HRS.
ELEMENTARY	00	045

48 TEACHING AREAS

49 LEVELS

50 POSITIONS

51 FUNCTIONS

I DEEM MYSELF FULLY QUALIFIED (BASED ON COLLEGIATE PREPARATION POST GRADUATE STUDIES CREDIT AND/OR NONCREDIT WORKSHOPS AND INSTITUTES, TRAVEL, AND EXPERIENCE) TO HANDLE THE FOLLOWING

52 TEACHING AREAS	53 CODE	54 LEVELS	55 POSITIONS
ELEMENTARY	00	E	
PHYSICAL ED	75		
ART	70		

(REPRODUCED FROM STATE FORM)

58 ON LEAVE OF ABSENCE
RETURNED FROM LEAVE
TERMINATED (CHECK REASON)

REASONS: RESIGNED DISCHARGED DECEASED

Joan L. Stevenson
SIGNATURE

9-14-69
DATE

59 SERIAL NUMBER OF CERTIFICATE INDICATED IN ITEM 29 ABOVE---- A-32123

CP 1 REV 2-69-40M

Sample Form - Returning Elementary Teacher

THIS SAMPLE CP-1 FORM (left) is for an elementary teacher returning to the same school in which she taught last year. The information in the shaded areas of the form was pre-printed by the computer.

Note the following special conditions exemplified on this sample:

1. A change of names (Items 1 and 4) and marital status change (Item 7).

2. A change in function (Item 13A). This year she will work with rural disadvantaged children.

3. A change in level (Item 15). This year she will teach both second- and third-graders.

4. She has earned five more credits toward her next certificate.

5. Change in employment status (Item 22). She becomes a tenure teacher, having satisfactorily completed her third year of teaching in the district. Experience (Items 23 and 26) is up-dated one year.

6. Correction of pre-printed degree code (Item 38) from MA code to correct BA code.

7. She includes in Item 52 the elementary teaching area listed under subject area (Item 45). Also, she deems herself qualified to teach physical education and art, although she has not been assigned in these areas.

STATE OF COLORADO

DATA COLLECTION FOR MENTALLY RETARDED RESIDENTS

COLS.	ITEM
1	INSTITUTION CODE 1 MENTAL RETARDATION CENTER 2 WHEATRIDGE 3 GRAND JUNCTION 4 WAITING LIST 5 IN PROCESS 6 COMMUNITY CENTER
2–3	HALL/DORMITORY
4–8	ADMISSION NUMBER
9–23	NAME (LAST-FIRST)
24–27	ADMISSION DATE (MONTH-YEAR THIS ADMISSION)
28–31	DATE OF FIRST KNOWN ADMISSION (MONTH-YEAR)
32–33	REASON FOR ADMISSION (TWO DIGIT CODE)
34–35	COUNTY OF RESIDENCE (AT TIME OF ADMISSION)
36–37	COUNTY PARENTS NOW LIVING IN
38–43	BIRTHDATE (MONTH-DAY-YEAR)
44–45	I.Q. (TWO DIGITS – 99 MEA
46	TYPE OF TEST 1 WAIS, WISC OR WECHSLER BELLEVUE 2 BINET 3 CATTELL 4 PEABODY 5 LEITER 6 GESELL 7 OTHER I.Q. SCALES 8 NONE
47–48	S.Q. (TWO DIGITS – 99 MEANS 99 OR OVER)
49	TYPE OF TEST 1 VINELAND 2 PARSONS 3 OTHER S.Q. SCALES 4 NONE
50	LEVEL OF RETARDATION 1 BORDERLINE 2 MILD 3 MODERATE 4 SEVERE 5 PROFOUND 6 NORMAL 0 UNKNOWN
51–53	DIAGNOSIS (AAMD ETIOLOGY CODE – THREE DIGITS)
54–58	SUPPLEMENTARY TERM LISTING 1 GENETIC COMPONENT 2 SECONDARY CRANIAL ANOMALY 3 IMPAIRMENT OF SPECIAL SENSES 4 CONVULSIVE DISORDER 5 PSYCHIATRIC IMPAIRMENT 6 MOTOR DYSFUNCTION 0 UNKNOWN

(REPRODUCED FROM STATE FORM)

TABLE 1

SUMMARY OF DATA DEVELOPMENT STATUS

COLORADO

DATA ELEMENTS			PUBLIC SCHOOLS			INSTITUTIONS			COMMUNITY CENTERS			PRIVATE SCHOOL DATA
			CURRENT STATUS	METHOD OF DEVELOPMENT	SOURCE OF DATA	CURRENT STATUS	METHOD OF DEVELOPMENT	SOURCE OF DATA	CURRENT STATUS	METHOD OF DEVELOPMENT	SOURCE OF DATA	
NUMBER OF CHILDREN IDENTIFIED AS NEEDING SPECIAL EDUCATION	ENROLLED	AGE	Currently available—"Application for Approval Education Services Pupil List"	Not applicable	Local Administrator of Special Education	Currently available—Annual Report of Division of Mental Health	Not applicable	Superintendent of Institutions	Currently available—Annual Report on Community Centers for Mentally Retarded	Not applicable	Division of Mental Retardation, Department of Institutions	Not currently available
		HANDICAPPING CONDITION										
		EDUCATION PROGRAM										
	ON WAITING LIST	AGE	Available for mentally retarded children in Denver	New form required	Local Administrator of Special Education	Currently available—Annual Report of Division of Mental Health	Not applicable	Superintendent of Institutions	Not available at state level	Form may be developed or telephone contact made	Director of Community Centers	Not available
		HANDICAPPING CONDITION										
NUMBER OF CHILDREN MOVING INTO AND OUT OF IDENTIFIED HANDICAPPED CHILD POPULATION	NEWLY DIAGNOSED AS NEEDING SPECIAL EDUCATION	AGE	Not available	New form required	Local Administrator of Special Education	Not available	Data secured through school district superintendents	Local Administrator of Special Education	Not available	Data secured through school district superintendent	Local Administrator of Special Education	Not available
		HANDICAPPING CONDITION										
	INTRA-STATE TRANSFERS	AGE	Not available	New form required	Local Administrator of Special Education	Not available	Modification of existing forms	Superintendent of Institutions	Not available	Modification of existing reporting forms	Director of Community Centers	Not available
		HANDICAPPING CONDITION										
	ATTRITION FROM THE IDENTIFIED HANDICAPPED POPULATION	AGE	Not currently available	New form required	Local Administrator of Special Education	Not currently available	Modification of existing forms	Superintendent of Institutions	Not currently available	Modification of existing reporting forms	Director of Community Centers	Not available
		HANDICAPPING CONDITION										
		REASON										
YEARLY PROJECTIONS OF THE CHILD POPULATION, BY AGE			Available	Not applicable	Division of Special Education							
DATA USED TO SIMULATE SPECIAL EDUCATION	EDUCATION PROGRAM MIX TRENDS		Available	Not applicable	Division of Special Education							
	TYPES OF PERSONNEL AND PERSONNEL/PUPIL CONTACT RATIOS	TARGET GROUP	Currently available	Not applicable	Division of Special Education	Not available	Must be requested by Division of Special Education through Department of Institutions	Superintendent of Institutions	Not available	Must be requested by Division of Special Education through Department of Institutions	Director of Community Centers	Not available
		EDUCATION PROGRAM										
OPTIONAL: NUMBER OF SPECIAL EDUCATION PERSONNEL EMPLOYED, BY TYPE			Available	Not applicable	Division of Special Education	Not available			Not available			

CONNECTICUT STATE ANALYSIS REPORT

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The research reported herein was performed pursuant to Contract No. OEC 0-9-08928-0710 with the Bureau of Education for the Handicapped, Office of Education, U.S. Department of Health, Education, and Welfare. Contractors undertaking such projects under Government sponsorship are encouraged to express freely their professional judgment in the conduct of the project. The points of view or opinions stated to not, therefore, necessarily represent official Bureau position or policy.

CONNECTICUT STATE ANALYSIS REPORT

I. INTRODUCTION

Sponsored by the Bureau of Education for the Handicapped (BEH), Operations Research, Inc. (ORI) has developed a mathematical model that provides the framework for systematic consideration and evaluation of major elements contributing to the determination of special education manpower needs. The model has been designed for application by state special education agencies and, when fully implemented, will assist each state in the systematic prediction of its own special education manpower needs, based upon individual state educational characteristics. The model will simulate present and future manpower needs under varying assumptions regarding changes in personnel/pupil contact ratios, the educational program mixes, the child participation rate, or any combination of these variables.

Following development of the model, a visit was made to each of the 50 state special education agencies in order to familiarize the states with the objectives of the program and to conduct a survey of current state information flow procedures. The purpose of the survey was to review and analyze the capability and potential for utilization of this model by the state agencies responsible for the education of handicapped children. The survey included an analysis of:

a. The capability of existing information flow processes to provide the necessary model input data

b. The existing automatic data processing capability to process the model program

c. The special education staff capability and desire to utilize the model.

This report presents the findings of the survey in the State of Connecticut, and contains recommendations pertaining to the establishment of information flow procedures for model utilization as well as to the improvement of general information availability for special education program management. The data development status is summarized in Table 1 at the end of this report.

II. SUMMARY

Special education services and instruction as viewed at the state level in Connecticut require sophisticated and comprehensive information for the meaningful implementation of the Manpower Requirements Projection Model as well as for the operational use of the Bureau of Pupil Personnel and Special Educational Services (BPPSES). In contrast to these requirements is the data presently provided. The limited data available is largely untimely and unresponsive to even the operational or decision-making needs of the Bureau.

The BPPSES, having recognized this situation, initiated a "forms committee" to synthesize the data needs of the Bureau and to design the necessary forms and instructions. The committee had, at the time of the survey visit, reached the point in its effort of requiring a systems analysis capability to achieve not only the goals of the committee, but also those of the model. The similarity between the data needs of the two projects was recognized and emphasized by the Bureau Chief and some of his staff.

The data presently collected by the Bureau of Research, Statistics and Finance is largely for financial purposes and some of its special studies. Extensive modification of its forms would be necessary to incorporate the variables necessary by the model. Moreover, such modifications do not appear possible in the near future.

While the proposal of the forms committee appears more feasible, it too faces implementation problems. The funds and systems analysis will have to be made available to the Bureau over a period of two years if implementation is desired in the near future. In addition, implementation will entail the concerted effort of state and local personnel in conjunction with the additional recommended manpower.

The cooperation offered during and subsequent to the state visit by the Bureau staff, as well as by representatives of allied agencies, and the favorable attitude exhibited toward the objectives of the visit are indicative of the reception the implementation of the Manpower Requirements Projection Model will receive in Connecticut.

III. EDUCATIONAL RESPONSIBILITIES

The primary educational agency in Connecticut is the Department of Education, headed by the Secretary and Commissioner of Education, who reports to the State Board of Education (see Figure 1). The Commissioner has the responsibility for education in public schools and in one special school,

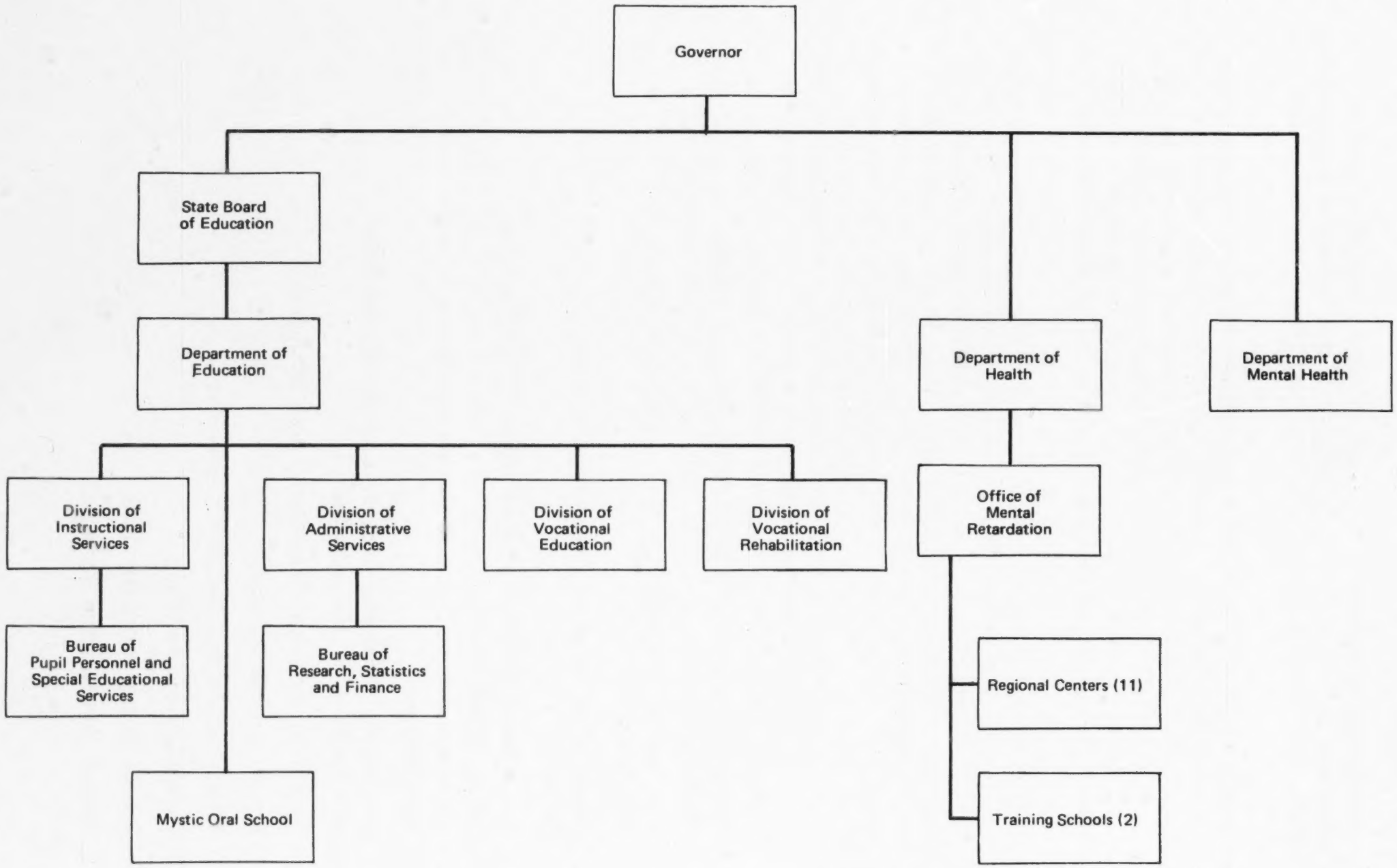

FIGURE 1. CONNECTICUT STATE GOVERNMENT
(AS PERTAINS TO HANDICAPPED CHILDREN)

the Mystic Oral School.

The Department is organized into four divisions, all of which are pertinent in some way to the development and use of the Manpower Requirements Projection Model. The organizational focal point of these activities is the BPPSES.

The Bureau is charged with the responsibility of providing leadership and service to the public schools and related educational agencies of the state in the development and operation of Pupil Personnel and Special Education programs for the benefit of elementary and secondary school pupils. To accomplish this purpose, it brings together in a unified group all of the principal services which relate to the special education needs of children and youth.

In addition to working with the public schools, consultative services are provided to other state supported and private institutions which operate special educational programs as part of their over-all functions. Similarly, liaison activities are carried out with other state and Federal agencies that are concerned with programs of special education. The Bureau also works closely with other units of the State Department of Education. The cooperative activity with the Division of Vocational Rehabilitation and the Division of Vocational Education in the development or programs for the rehabilitation and vocational training of handicapped youth is representative of the Bureau's involvement. The major categories of Bureau responsibility are:

- Audio-Visual, Television, and Educational Media Services
- Educational Programs and Services for the Gifted and Talented
- Educational Programs and Services for the Mentally Retarded
- Educational Programs and Services for the Perceptually Handicapped
- Educational Programs and Services for the Physically Handicapped
- Educational Programs and Services for the Socially and Emotionally Maladjusted
- Guidance Services, Elementary and Secondary
- School Health Services
- Measurement and Evaluation Services
- Psychological Services
- School Social Work Services
- Speech and Hearing Services.

The Division of Administrative Services, Bureau of Research, Statistics and Finance, is charged with providing statistical and automatic data processing assistance to the entire department. At present, this agency is the main source of actual data for the BPPSES.

Other departments in Connecticut with educational or diagnostic responsibilities for handicapped children are the Department of Mental Health and the Department of Health.

State operated programs are conducted at the Connecticut Valley Hospital and High Meadows for a total of about 150 children. Under a grant assistance program, the Foundation School, the Foster School, and the Ives School conduct day treatment programs for over 100 children.

In addition, six clinics receive support from the Department of Mental Health. The services of the clinics include day treatment programs and reach over 100 children.

Within the Department of Health is the Office of Mental Retardation, whose deputy commissioner is charged by law with responsibility for the care, training, education, treatment, and custody of mentally retarded and epileptic persons, both children and adults. These responsibilities are exercised primarily in the two training schools and the eleven regional centers established throughout the state.

Any coordination of programs required with the Office of Mental Retardation or the Department of Mental Health is the responsibility of the consultant for the mentally retarded in the BPPSES.

IV. DATA ELEMENTS EVALUATION

A number of specific data elements are necessary for the use of the Manpower Requirements Projection Model. The information which these data elements provide may also be very useful to the BPPSES for operational analyses. These data elements, their development, and their potential sources are discussed in the following paragraphs and summarized in Table 1 at the end of this report.

Enrollment

The enrollment of handicapped children in the public schools is collected as the total number of special education classes. The Fall School Report, form ED-006 (see Section X), due in the Bureau of Research, Statistics and Finance by October 25 each year, provides only the total number of special education classes by size of class. The size is expressed as being within a range of five students, i.e., classes of 1-5, 6-10, etc. This form does not distinguish among types of handicaps or among educational programs. The End of Year School Report, form ED-001 (see Section X), due August 1 in the same bureau, requires aggregate days membership and attendance for Special Education students in public schools (p. 3 of the form) and nonlocal and/or nonpublic

schools (p. 5). The first summary of special education classes is not available until the fall of the year following its collection. For example, at the time of the state visit in September 1969, the most recent enrollment data was that collected for the school year 1967-68. In the interim, the consultants estimate the enrollment in the exceptionality for which they are responsible, and when the number of classes becomes available, they employ average class size to refine the estimate of total individual enrollment.

The Fall School Report, form ED-006, is the more responsive of the two forms to the timing needs of the model, but it would require extensive modification to provide data suited to the needs of the model. Such extensive modifications are not to be expected in the near future.

The proposed Form II (see Section X), developed by the forms committee, is considerably more responsive to the needs of the model. The form provides some information on the age, handicap, and educational program of the class. Educational program is not specified, but it could probably be deduced or approximated. If this procedure is possible and if the age range of the class is not large, the needs of the model could be met, at least in the interim. In any case, the few necessary modifications would be far less extensive than those required for the forms currently used. The job of implementing the proposed forms looms as a major undertaking, however.

The enrollment data on the mental institutions, hospitals, and clinics is not available on a regular basis at the Bureau. However, this information is available in terms of type of handicap, single year of age, and educational program at the Department of Health.

Similar data on the mentally retarded at the 11 regional centers and the two training centers does not appear to be available at the state level agency. The flow of this data would have to start at each of the centers.

The enrollment data by number of handicapped children for other state institutions and hospitals, including American School for the Deaf, Mystic Oral School, Newington State Hospital, and Norwich State Hospital, is generally available at the BPPSES through the consultant responsible for the interface with the particular institution. However, age data are not available in most cases and educational program data appears very limited.

At the time of the visit to Connecticut, data on private school enrollment was not available. However, an effort was being made through an outside consultant to develop information on the hearing impaired population which would presumable identify those enrolled.

Waiting List

Waiting list data, or the number of children identified as handicapped but not receiving recommended educational services, is virtually nonexistent at the state level, particularly for public schools.

In view of this deficiency, the forms committee of the Bureau has proposed a form for Planning and Placement Team data that will permit the derivation of waiting list data. In fact, this form, which can only be completed by the local Directors of Pupil Personnel Services, will permit the derivation of two waiting lists, i.e., one for special education services and/or one for special education instruction. In a revision to this form since the time of the interview, the waiting list data will encompass all children not placed and not just those diagnosed in the reporting period.

The General Statutes of the State of Connecticut require that a child determined to be in need of a special education program by the Planning and Placement Team be provided "such a program as soon as possible, but in any event within a period no longer than twelve weeks from the date of such determination." The mandatory nature of this statute will minimize the size of the waiting lists, possibly artifically so. There may be a tendency to report only those children for whom services can be provided in the stipulated time.

In the case of the institutions, this information, while generally not available at the state level, is maintained at the respective institutions except in the case of institutions, hospitals, and clinics supported or operated by the Department of Health. Since modification of the proposed forms for institutional use does not appear feasible, a new form will probably be required to solicit waiting list information from the institutions, hospitals, clinics, or their cognizant agency at the state level.

Children Moving Into and out of the Identified Handicapped Child Population

At present, no data on children entering and leaving the identified handicapped child population is available at the BPPSES. The model requires three specific data elements in this category, i.e., the newly diagnosed in need of special education, intrastate transfers, and attrition from the identified population. In each case the age and handicapping condition must be known to project the size of the target group.

The only identified source of data describing the movement in public schools of children into and out of the handicapped population is Table XI on p. 12 of form ED-001 (see Section X). This form is part of the End of Year School Report collected by the Division of Research, Statistics and Finance. The data could be analyzed to determine, in part, the intrastate transfers and the total number attriting from special education. No age or handicap breakdown is available, and more importantly, the definition of those reported as special education students in the form excludes all children receiving special services only. This data is collected primarily for financial purposes, and as a result, it is largely unsuited to the data needs of the model. In addition, there appears to be difficulty in communicating the data to the BPPSES.

The needed data elements will probably have to be developed if the model is to be implemented. Apparently, the only feasible source of such data is the local education agency. While the ultimate responsibility for the referral, diagnosis, and placement of handicapped children is vested in the Director of Pupil Personnel Services of the local agency, it is presently the Planning and Placement Teams, comprising a variety of specialists, that exercise the responsibility.

Form V of the forms committee proposal includes the category of newly diagnosed individuals and distinguishes between special education services and instruction. This form is to be completed by the local director, who can summarize for all of the teams in the local agency. However, the proposed form requests the total number only and does not distinguish among handicaps or ages.

It is not apparent where the other two data elements could be included in the proposed form. The logical sources of such data are the special education personnel with instructional assignments, who are to complete Form II. However, this form is not amenable to the inclusion of intrastate transfers and attrition by age and handicap. A new form may be necesary to capture this data.

For the institutional data in the foregoing three categories, the source is again the institution itself or the cognizant state agency.

General Child Population Projections

The 10 year projection of general school age children is made and published annually on January 1 in the Division of Administrative Services, Bureau of Research, Statistics and Finance.

Projected Mix of Educational Programs

The BPPSES will be able to estimate the future mix of educational programs on the basis of past trends in enrollment in the various programs and the policy and program emphasis envisioned for the future.

Teacher/Pupil Contact Ratios

Teacher/pupil contact ratios are available for most handicapping conditions. They are either established by the regulations of the state board of Education, the policy of the BPPSES, or the guidelines recommended by the consultant. The ratios range from suggested case load on an ungraded basis for supplemental type instruction to required class size per educational level and town size for the mentally retarded. Some of the established ratios are predicated upon the use of paraprofessionals or aides and in other cases, their use is suggested or left to the discretion of local officials.

Special Education Personnel

The number of special education personnel providing instruction and services is for the most part available, although with considerable time lag. For those programs involving class instruction, the number of teachers is simply a function of the number of classes. The Bureau of Research, Statistics

and Finance generally collects the data that provide, directly or indirectly, the number of special education personnel. The proposed forms, however, will directly provide all of the data on all special education personnel, including instructional personnel (Form II), noninstructional personnel (Form III), and supervisory personnel (Form IV). Moreover, it can provide the data much more quickly than the present system.

V. PROCESSING POTENTIAL

At the time of the visit to Connecticut, there was no electronic data processing capability within the Department of Education. Automatic data processing equipment consisting of listers, collators, and sorters was located in the Bureau of Research, Statistics and Finance of the Division of Administrative Services.

A state data center with ample computer capability for the model and its associated data flows exists, but the access of the BPPSES to it appears to be questionable. At a minimum, the Bureau would have to have funds specially allotted or budgeted for that purpose. The Bureau will probably have to deal with the data center through the Bureau of Research, Statistics and Finance. The procedures for this undertaking are unclear due to a lack of precedents.

The use of an outside service bureau appears to have distinct advantages, especially since much of the data required by the model will be provided by the forms developed within the BPPSES itself. Close coordination between this Bureau and the service bureau, particularly during implementation, when the system is "debugged", would be vital. An added benefit would be the less expensive keypunching that could be secured.

In addition, the BPPSES would require an infusion of systems analysis capability in the implementation stage. This outside talent would be required to instruct the potential users in structuring the input data and analyzing the computer output of the model. This capability is present within the Bureau of Research, Statistics and Finance, but the availability of the talent to the extent required is very questionable.

The attitude of the Bureau Chief and his staff toward the use and implementation of the model was very favorable, and their attitude toward the establishment of the associated data flows was even more positive. Many of the consultants for the various exceptionalities commented on the similarity between their data needs and some of the data elements required by the model. In all cases, the cooperation received was excellent.

Given the attitude and interest of the Bureau personnel, their proposed data flow and the associated forms, and the characteristics of the state, the possibility of implementing the Manpower Requirements Projection Model appears very good, if the necessary outside assistance outlined in Section VIII is provided.

VI. ADDITIONAL FACTORS

The educational system of the State of Connecticut is divided into approximately 170 reporting entities. These are either towns or regular school districts, and most participate in one or more special education programs. Since there are no functioning intermediary levels, any data solicited from these local sources would be summarized at the state level.

These local authorities are represented by a group of educational personnel who are empowered to review and rule on the appropriateness of data elements proposed for collection from the local districts. This authority will necessitate the documentation of data needs, extend the implementation time, and possibly dictate a piecemeal implementation strategy.

The State of Connecticut provides a significant portion of the funding for providing special education programs for exceptional children. The General Statutes establish a reimbursement formula of two thirds of the amount by which special education costs per pupil exceed the cost per pupil of educating all pupils in the school district. Also, a limited number of grants to school districts to cover the total construction costs of special education facilities is provided. This extensive reimbursement and the relationships established by some twenty professional members of the BPPSES with the local education personnel provide a sound basis for developing a systematic and comprehensive data flow.

The possibilities of establishing a comprehensive information system and education plans are considerably enhanced by the contacts and channels established by the staff consultants with other agencies in the state having responsibility for handicapped children. Among these are the program coordination effected with the Division of Vocational Education and Vocational Rehabilitation in the Department of Education. Other examples are the advisory and evaluative responsibilities assumed by various consultants for institutional, regional centers, and private school programs.

It is estimated by the consultants that approximately 30,000 handicapped children were enrolled in some type of special educational program in 1967-68. This number is expected to grow substantially due to the inclusion of the preschool handicapped children in special education programs. Education for this group became mandatory on July 1, 1969 except for hearing impaired children, whose preschool education was made mandatory in 1967. In addition to providing the model with required data, the introduction of the target group concept into the data flow at this time will enable the staff consultants to better meet the challenges posed by the preschool age group and enable them to compare and evaluate the programs of children in other age brackets.

As mentioned previously, an internal group of five BPPSES consultants is developing a set of forms to meet the data needs of a variety of functions, including compliance and evaluation. This effort is not of recent origin. It was created more than a year ago to fulfill a need of the Bureau, namely that of accurate and timely data consistent with the goals of the Bureau. Although a schedule for approval and adoption of these forms had not been established at

the time of the interview, the implementation of the forms now appears imminent. The progress made since the state visit in revising the contents of the forms to better meet the model data requirements and in revising the formats to achieve compatibility with automatic data processing, makes the implementation of the model a very near-term possibility. The introduction of the systems analysis capability for model and data flow implementation (discussed in detail in Section VIII), and the addition of processing capability for the data flows and the model in conjunction with the implementation of the forms, would be propitious and efficient.

VII. RECOMMENDATIONS

The following recommendations would, upon implementation, provide for the information flow of data elements necessary to the utilization of the Manpower Requirements Projection Model and improve the quality of information available for special education program management.

To achieve basic implementation of this model in the State of Connecticut, it is recommended that:

1. The Proposed Special Education Form ED042 be implemented on an annual basis as soon as possible with the following modifications:

   a. Educational program, e.g., resource room, day special class, or supplemental, be specified by code for each class on Form II. (Recommendation implemented in the revised form.)

   b. Enrollment data be collected in the fall to establish a baseline against which change throughout the year can be measured and also to permit a midschool year computer run of the model by the service bureau supporting special education.

   c. The type of handicap and age of those recommended for special education instructions or services and those provided such services be incorporated in Form V. Beside satisfying the data needs on those diagnosed as needing special education, the difference of the above categories will provide the data on those awaiting services or instruction. The reporting of this category can then be developed to the extent permitted by the diagnostic process and cooperation of local school officers.

d. A form be added to the proposed package that would identify the number of children by age and handicap that were attriting from special education programs and those transfering within the state.

e. Planning and Placement Team Data, as well as attrition and transfer data be collected at least once a year, preferably at the year's end. If the data is received in early summer or as close to the end of the school year as possible, it would permit manpower projections to be made during the summer, as well as allowing operational decisions to be made prior to the start of the new school year.

f. The forms be reviewed for keypunch compatibility. (All six forms have been reformatted for optional scanning since the September visit.)

2. An outside service bureau be employed for implementation and maintenance of proposed reports until such time as the internal education processing group and the state service bureau have achieved the capability to service and support the effort. The use of the above forms, for which modifications and additions were recommended, is predicated on the use of an outside service bureau.

3. The data for the institutions, hospitals, and clinics be developed through the cognizant consultants who already have established communication channels. The use of the proposed forms, while advisable from the viewpoint of data standardization and uniformity, may not be appropriate due to lines of state authority and the compliance nature of some of the data requested on the forms. Hence, the data may be collected on a request basis or on forms tailored to institutional use.

4. Statewide prevalence rates be developed for those exceptionalities not currently compiled in Connecticut, using prevalence rates is an interim method of estimating the total handicapped child population. These rates are a starting point for such an estimation, but to be useful in the long run, not only for applying the model but for other state planning purposes, they should be validated with actual data. Such validation

can be done by collecting appropriate data including the referral and diagnostic data proposed for inclusion on Form V, and making successive approximations. Later documents pertaining to this project will contain more detailed descriptions of alternate methods of validating these rates.

5. The mix of enrollments by educational program or placement be projected by the BPPSES on the basis of historical enrollment patterns and policy changes or other factors that would affect the state's emphasis on educational programs in the future.

To achieve improvement in the quality and quantity of information developed, the following considerations are offered:

1. The existing and proposed forms will provide the data required by the Manpower Requirements Projection Model. However, the reliability and consistency of the data may be improved if the personnel completing the form have some additional guidance and reinforcement. This may be accomplished in several ways:

   a. Explain the need and purpose of the data in addition to defining the terminology.

   b. When visiting the local districts and conducting workshops, discuss the forms and their use. Also discuss the model and its benefit to local special education as well as to the state.

   c. Provide feedback to the local districts on results of data collected, including summaries and special studies.

The recommendations and considerations offered, if implemented, should result in successive improvements in the completeness and the accuracy of the data elements over time, with validity being achieved within a few years. Later documents pertaining to this project contain additional information about methods which may be used to estimate some of the data elements until a good information flow is developed and validated.

VIII. RESOURCE REQUIREMENTS—MANPOWER

The BPPSES will require assistance in implementing the recommendations made in Section VII. In addition to the cooperation and assistance of the

various agencies at the state and local level which will be involved in implementing and maintaining or operating the Manpower Requirements Projection Model, systems analysis capability will be required in both phases.

This talent is required at the time of implementation to aid in modifying and designing keypunchable forms and in programming and designing the system. In addition, the systems analyst(s) should assist in training state and local personnel, writing procedures, and coordinating technical aspects among the various groups exchanging data and results. The manpower necessary to effect the recommendations necessary for the implementation phase is estimated as 5 man-months of special education staff effort, 1 man-month for forms design, 3 man-months of systems analyst time, and $1\frac{1}{2}$ man-months for programming over a period of two years.

During the operation of the system, i.e., once system implementation is achieved, manpower will continue to be required to ensure quality control and to refine and improve the data flow, as well as updating the training of the suppliers to and users of the model. This effort will annually require approximately 2 man-months of special education staff effort, and about $\frac{1}{2}$ man-month of combined analyst/programmer time.

The source of this systems analysis talent for the implementation phase will have to be additional staff or external personnel. For the maintenance phase, the internal education processing group may be capable and willing to provide the systems analysis service. If not, additional staff or personnel from an external source will again be required.

IX. PERSONS INTERVIEWED

The persons interviewed by the Operations Research, Inc. (Leasco) representative, Mr. Joe Kelly, during the September visit to Connecticut were:

Dr. Francis A. McElaney	Chief, Bureau of Pupil Personnel and Special Educational Services
Mrs. Lucile E. Abell	School Social Work Services, Bureau of Pupil Personnel and Special Educational Services
Mr. James M. Burke	Measurements and Evaluation, and Forms Committee, Bureau of Pupil Personnel and Special Educational Services
Dr. Geraldine Garrison	Speech and Hearing, Bureau of Pupil Personnel and Special Educational Services
Mr. Joe R. Gordon	Professional Development and Inservice Training, and Forms Committee, Bureau of Pupil Personnel and Special Educational Services
Mr. Kenneth E. Jacobs	Education for Physically Handicapped, Bureau of Pupil Personnel and Special Educational Services
Dr. Joseph Lavender	Education for Mentally Retarded, and Forms Committee, Bureau of Pupil Personnel and Special Educational Services
Mrs. Barbara Anne Macdonald	School Social Work Services, and Forms Committee, Bureau of Pupil Personnel and Special Educational Services
Mr. Robert I. Margolin	Education for Socially and Emotionally Maladjusted, Bureau of Pupil Personnel and Special Educational Services
Mrs. Gloria L. Robinson	Health Services, Bureau of Pupil Personnel and Special Educational Services

Mr. Gabriel G. Simches	Education for Socially and Emotionally Maladjusted, Bureau of Pupil Personnel and Special Educational Services
Dr. Mildred B. Stanton	Psychological Services, Education for Partially Seeing, Bureau of Pupil Personnel and Special Educational Services
Mr. Clarence H. Steinberger	Guidance Services — Secondary, and Forms Committee, Bureau of Pupil Personnel and Special Education Services
Mrs. Dorothy Hovey	Administrative Intern, Office of Mental Retardation, Department of Health
Mrs. Frances T. Roberts	Public Information Supervisor, Department of Mental Health
Mr. Dick Wisman	Supervisor, Department of Mental Health

X. CURRENT REPORT FORMATS

Included in this section are samples of the existing and proposed forms in Connecticut at the time of the September visit. These forms are the ones pertinent to the data needs of the Manpower Requirements Projection Model as described in the preceeding sections. The existing forms included are:

FALL SCHOOL REPORT, ED-006, p. 5.	Bureau of Research, Statistics and Finance
END OF YEAR SCHOOL REPORT, ED-001, and pp. 3, 5, 12.	Bureau of Research, Statistics and Finance

The proposed forms included are:

SPECIAL EDUCATION FORM, ED-042:	Bureau of Pupil Personnel and Special Educational Services

Form I, General Section

Form II, For Professional Staff With an Instructional Assignment

Form III, For Professional Staff With Non-Instructional Assignment

Form IV, For Professional Staff With Supervisory Assignment

Form V, Planning and Placement Team Data

Form VI, Aides

Since the time of the visit, the proposed forms have been modified in format and content as discussed in the preceeding text. For illustrative purposes, the forms shown are still useful.

Town or Region ( )
Code (1-4)

School Year
1969-1970

ED 006

TABLE IV. NUMBER OF CLASSES BY SIZE OF CLASS. "Size of Class" is the number of children in one classroom under supervision of one classroom teacher throughout major portion of the school day.

CARD COL. NOS.	SIZE OF CLASS	NUMBER OF CLASSES			
		PRE-KDGN.	KINDERGARTEN	ELEMENTARY (exclude PRE-K,K)	SPECIAL EDUCATION
(5-6)	1-5				
(7-8)	6-10				
(9-11)	11-15				
(12-14)	16-20				
(15-17)	21-25				
(18-20)	26-30				
(21-23)	31-35				
(24-25)	36-40				
(26-27)	41 or more				
(28-30)	TOTAL NO. OF CLASSES				

(REPRODUCED FROM STATE FORM)

TABLE V. INSTRUCTION ROOMS.
Total number of all publicly owned ELEMENTARY AND SECONDARY INSTRUCTION ROOMS. For purposes of this item, consider the school year to begin at the opening of school in the fall - typically early in September - and extend to the opening of school in the following year. (The numbers in parentheses below the lines are card column numbers).

Instruction rooms include classrooms, laboratories, and shops, but exclude auditoriums, gymnasiums, lunchrooms, libraries, study halls, and multi-purpose rooms.

Classify all instruction rooms as elementary or secondary according to their major use.

	Elementary (include Pre-K,K)	Secondary	Total
a. Abandoned for instructional purposes during the 1968-69 school year(also includes rooms converted to other purposes, destroyed, etc.)	(5-7)	(8-10)	(11-13)
b. Completed during the 1968-69 school year (also includes rooms converted from other uses to instructional purposes)	(14-16)	(17-20)	(21-23)
c. Available and in use at the beginning of the 1969-70 school year.	(24-28)	(29-32)	(33-37)

TABLE I PUBLIC SCHOOL SUMMARY

Town or Region	ED 001 School Year 1968-69

When completing this page, make certain to follow instructions on page 2 for the applicable items, and the footnotes that apply.

LOCAL DAY SCHOOL DATA

	Pre-K and/or Kindergarten		Elementary (exclude Pre-K & K)	Middle School	Junior High School	High School	Line No.
LOCAL SCHOOLS GRADE SPAN	XXX						1
MINUTES OF SCHOOL WORK DAILY	A.M.	P.M.					2
NUMBER OF SCHOOL DAYS–REGULAR SCHOOL YEAR							3

REPORT OF AGGREGATE DAYS MEMBERSHIP

Line 6, AGGREGATE DAYS MEMBERSHIP is equal to: Aggregate Days Absence Plus Aggregate Days Attendance (line 4+5=6); Boys plus Girls (line 7+8=6); Resident plus Non-Resident (line 9+10=6).

LOCAL DAY PROGRAM (July 1-June 30, include Vo-Ag)	Pre-Kdgn. and/or Kdgn.	Elementary (exclude Pre-K & K)	Middle School	Junior High School	High School	Special Education	Total Grades Pre-K-12	Line No.
Aggregate Days Absence								4
Aggregate Days Attendance								5
Aggregate Days Membership								6
Boys								7
Girls								8
Resident Pupils								9
Non-Resident Pupils[1]								10
RESIDENT PUPILS SENT OUT[2]								11

REGIONAL VO-AG CENTERS	Grade 9	Grade 10	Grade 11	Grade 12	Total Grades 9-12	
Resident Local Pupils						12
Non-Resident Pupils in Local Schools[3]						13
Resident Pupils Sent Out[4]						14

[1] Page 4, Lines 9 & 16 & 21 & 27 & 33
[2] Page 5, Lines 9 & 16 & 21 & 27 & 33
[3] Page 4, Line 21
[4] Page 5, Line 21

Page 3 Prepared by (Name & Title)

(REPRODUCED FROM STATE FORM)

TABLE III

AGGREGATE DAYS MEMBERSHIP OF RESIDENT PUPILS ATTENDING NON-LOCAL AND/OR NON-PUBLIC SCHOOLS

(Report only those pupils for whom tuition is paid by the local school district)

Town or Region _____ ED 001 School Year 1968-69

Type of Pupil (a)	School District or Name of School (b)	Pre-K and/or Kndg. (c)	Elementary (exclude Pre-K & K) (d)	Middle School (e)	Junior High School (f)	High School (g)	Total Grades Pre-K-12 (h)	Annual Per Pupil Tuition Rate (j)	Total Tuition Received (k)	Line No.
A. DATA ON RESIDENT PUPILS ATTENDING NON-LOCAL PUBLIC SCHOOLS—AGGREGATE DAYS MEMBERSHIP (Omit Cents)										
Regular Day Pupils								$	$	1
										2
										3
										4
										5
										6
										7
										8
	Total (lines 1 . . . . . 8)							XXX		9
Special Education Pupils										10
										11
										12
										13
										14
										15
	Total (lines 10 . . . . . 15)							XXX		16
Regional Vo-Ag Pupils										17
										18
										19
										20
	Total (lines 17 . . . . . 20)							XXX		21
B. DATA ON RESIDENT PUPILS ATTENDING NON-PUBLIC SCHOOLS										
Regular Day Pupils										22
										23
										24
										25
										26
	Total (lines 22 . . . . . 26)							XXX		27
Special Education Pupils										28
										29
										30
										31
										32
	Total (lines 28 . . . . . 32)							XXX		33

Page 5 Prepared by (Name & Title) _____

(REPRODUCED FROM STATE FORM)

TABLE XI. PUPIL ENTRIES, WITHDRAWALS AND PROMOTIONS FOR SPECIAL EDUCATION PROGRAMS

Do Not Include Summer School

Town or Region

ED 001 School Year 1968-69

Items (a)		Boys (b)	Girls (c)	Total (d)*
ORIGINAL ENTRIES	E1a			
	E1b			
	E1c			
	E1d			
	E1e			
	Total E1			
	Total E2			
	Total E1+E2			
RE-ENTRIES	R1			
	R2			
	R3			
	R4			
	R5			
	R6			
	R7			
	Total R's			
1. *Total Entries E's+R's				
TRANSFERS	T1			
	T2			
	T3			
	T4			
	Total T's			
EARLY SCHOOL LEAVERS	D1			
	D6			
	D11			
	D17			
	Total D's			
COMPLETIONS (High School Grads.)	C1			
	C2			
	Total C's			
DEATHS	De			
PROMOTIONS	P			
NON-PROMOTIONS	NP			
TEMPORARY WITHDRAWALS	U			
2. *Total Separations T's+D's+C's +De's+P's+NP's+U's				

*TO CHECK YOUR FIGURES: Line 1 above must equal line 2. Column b+c=d.

School Leavers Under 16 Yrs. Old			

Page 12 Prepared by (Name & Title)

(REPRODUCED FROM STATE FORM)

CONNECTICUT STATE DEPARTMENT OF EDUCATION
Bureau of Pupil Personnel and Special Educational Services
Hartford

DIRECTIONS FOR SPECIAL EDUCATION FORM ED 042*

(REPRODUCED FROM STATE FORM) DUE ON OR BEFORE_____
(DATE)

INTRODUCTION

The purpose of this form is to provide information on the assignments of each regular professional and non-professional employee of the board of education who is classified as "special education personnel" for the purpose of reimbursement under (Sec. 10-76a-g Revised) of the General Statutes. It also provides minimum information for approval of special education instructional and special services programs.

This form is to be filled out during the month preceding the due date indicated above and should report the status as of the first day of school of that month. Two copies are to be returned to the Bureau of Pupil Personnel and Special Educational Services (Attention: Chief of the Bureau). (One copy will be returned to the Superintendent of Schools for updating in the future.)

Please note the following definition:*

> Instruction means teaching a child subject matter or skills, including study skills or work skills, which are part of the educational curriculum for the child.

The form should be completed by each professional and non-professional staff member who is assigned to work exclusively in special education for at least one-third of his time. For teachers and pupil personnel staff this means that they are engaged during this period of time in providing special education diagnosis or evaluation and/or in providing special education instruction or other approved special services exclusively to special education children as recommended by the planning and placement team. (See definitions of special education personnel, special instruction, special program and special services in the State Board Administrative Regulation #10-76b-1 (p), (r), (s), (t), and 10-76b-2 (f).

For administrative or supervisory personnel, this means that they are spending at least one-third of their time administering the special education program and/or supervising or coordinating other special education personnel.

N.B.: If you serve in more than one capacity, complete all appropriate sections of the attached forms.

Do not submit this form for:

1. Persons employed on a per diem or fee basis. (These are reported on Form ED-044 at the close of the school year.)

2. Regular teachers assigned to home instruction on an extra time basis. (Although this time is reimburseable, this information is not required on this form.)

*See also definitions and requirements in Sec. 10-76a-g of the General Statutes and the State Board of Education Administrative Regulations for Children Requiring Special Education.

1. GENERAL SECTION: To be completed by all special education personnel*

1. School District _____ 2. School District Code No. __ __ __ __ __ **

3. (Circle One) Miss Mrs. Mr. Dr. Other: (Specify) _____

4. Name: _____ (Last) (First) (M.I.) 5. Date: ____ / ____ / ____ Month Day Year

6. Title: _____ 7. Title Code No. __ __ __ __ __ __ __

8. (Circle One) Full-Time Part-Time

9. (Circle One) PPT: Yes No

10. Average Hours / Week: _____

(REPRODUCED FROM STATE FORM)

* Section 10-76b-1(p): Administrative Regulations for Children Requiring Special Education, 7/1/68.

** See Special Education Personnel Title Code List

11. School/District Code No._____

II. FOR PROFESSIONAL STAFF WITH AN INSTRUCTIONAL ASSIGNMENT: To be completed by all certified instructional, special education staff.

12. Certificate No. ___ ___ ___ ___ ___ ___ ___ ___ ___ 13. Endorsement(s) ___ ___/ ___ ___/ ___ ___/ ___ ___/

School Name (14)	School Code No. (15)	Prog. Code No. (16)*	N-Stdnt. B (17)	N-Stdnt. G (17)	Age Range (18)*	Av. Time (19)	Aides Time (20)	Graduation (21)	Equip. & Mat. (22)	L.O.C. (23) a	L.O.C. (23) b	LGT (24)	CMFT. (25)	INTER. (26)	LAV. (27)	LAL. (28)	PLAY (29)
a.			X		to			Y N	Y N	Y N	Y N	Y N	Y N	Y N	Y N	Y N	Y N
b.			X		to			Y N	Y N	Y N	Y N	Y N	Y N	Y N	Y N	Y N	Y N
c.			X		to			Y N	Y N	Y N	Y N	Y N	Y N	Y N	Y N	Y N	Y N
d.			X		to			Y N	Y N	Y N	Y N	Y N	Y N	Y N	Y N	Y N	Y N
e.			X		to			Y N	Y N	Y N	Y N	Y N	Y N	Y N	Y N	Y N	Y N

Not for Home Instruction Teachers

	30.* N-less than Reg. Sch. Day	31. N-Travel over 1 hr./day one way	32. 16 yrs. of age or over	33. Voc. In. Sch.	33. Trng. Out Sch.	34. Hrs./Wks. Cons. Time	35. N-Stdnts. by I.Q. LESS 50	50-75	76-89	90-110	111-124	125-150	over150	36. Hm.Rm. N-Stdnts. Reg.	Sp.
a.															
b.															
c.															
d.															
e.															

(REPRODUCED FROM STATE FORM)

* See Program Code List

37. School/District Code No._____

III. For Professional Staff With Non-Instructional Assignment

38. Certificate No. __ __ __ __ __ __ __ __ __ 39. Endorsements __ __/ __ __/ __ __/ __ __/

40. School Name	41. Sch. Code No.	42. N-Stud. B	G	43. Age Range	44. EQUIP	45. LOC a	45. LOC b	46. LGT	47. CNFT	48. INTER	49. LAV	50. LEVL	51. PLA	52. Aides Time	53. Av. Hours/Week providing consultation or direct services to: Teachers	54. Parents	55. Students	56. Adm.
a._____	__ __	__	__	__to__	Y N	Y N	Y N	Y N	Y N	Y N	Y N	Y N	Y N					
b._____	__ __	__	__	__to__	Y N	Y N	Y N	Y N	Y N	Y N	Y N	Y N	Y N					
c._____	__ __	__	__	__to__	Y N	Y N	Y N	Y N	Y N	Y N	Y N	Y N	Y N					
d._____	__ __	__	__	__to__	Y N	Y N	Y N	Y N	Y N	Y N	Y N	Y N	Y N					
e._____	__ __	__	__	__to__	Y N	Y N	Y N	Y N	Y N	Y N	Y N	Y N	Y N					

(REPRODUCED FROM STATE FORM)

57. Town/District _____

IV FOR PROFESSIONAL STAFF WITH SUPERVISORY ASSIGNMENT: To be completed only by Administrative, Supervisory, and Coordinative Staff directly responsible for special education.

Enter by category the no. of Special Education Professional Staff you supervise:

58. a. Supervisors ___ b. Coordinators ___

59. Sp. Class Teacher(s): *PS___; S&H___; D___; MR(E)___; MR(T)___; PH;___ S&E___; NI___; LD___; P___; G___; T___; Total___

60. Speech & Hearing Clinician(s) ___ 61. Res. Room Teacher(s)___ 62. Home Instruction Teacher(s)___

63. Hosp. Inst. Teacher(s)___ 64. Itinerant Teacher(s) ___ 65. Nurse Teacher(s) 66. Counselor(s)___

67. Psyclologist(s) ___ 68. School Social Worker(s)___ 69. Nurse(s) 70. Aides ___ 71. Others (Specify)_____

D7-26

*Abbreviations:

PS-----Partially Sighted
S&H-----Speech & Hearing
D-----Deaf
MR(E)-----Mentally Retarded (Educable)
MR(T)-----Mentally Retarded (Trainable)
PH-----Physically Handicapped
S&E-----Socially & Emotionally Maladjusted
NI-----Neurologically Impaired
LD-----Learning Disability
P-----Pregnancy
G-----Gifted
T-----Talented

(REPRODUCED FROM STATE FORM)

72. Town/District _____

V. PLANNING AND PLACEMENT TEAM DATA (To be completed by Director of Pupil Personnel Services (or equivalent)).

Title	73. Team 1	74. Team 2	75. Team 3	76. Team 4	77. Team 5
	Number of People by Title Code on Each Team				
Superintendent and Assistant Superintendent					
Principal and Assistant Principal					
Director of Pupil Personnel Services					
Director of Special Education Programs *b					
Supervisor of Special Education Programs *c					
Coordinator of Special Education Services *d					
Supervisor of Special Education Services *e					
Special Education Coordinator/Supervisor/Director					
Special Education Teachers					
Speech and Hearing Clinician					
Res. Room Tchr.					
Hosp. Instr. Tchr.					
Itinerant Teacher					
Nurse Teacher					
Counselor					
Psychiatrist					
Psychologist					
Psych. Examiner					
S.S.W.					
Nurse					
Physician					
Sp. Serv. Aide					
Teacher Aide					
Other (Specify)					

(Please use additional sheets if necessary)

(REPRODUCED FROM STATE FORM)

School Year Student Analysis

78. N-Cases referred					
79. N-Cases studied and/or diagnosed					
80. N-Cases recom'd for sp. ed. instr.					
81. N-Cases in which instr. was provided					
82. N-Cases recom'd for sp. ed. services					
83. N-Cases in which sp. ed. services were provided					

84. Number of buildings used by your system in which the ratio of sp. ed. classes to reg. classes is greater than 1 to 3. _____.

*See Sec. 10-76b-2, (b) (c) (d) (e), respectively.

85. School/District Code No._____

VI. AIDES (To be completed by teacher or special service aides)

86. School Name	87. School Code No.	88. N Students B	88. N Students G	89. Age Range	90. N Teachers Served	91. N Sp. Serv. Pers. Served	92. Supervised by (use code list)
a.				to			
b.				to			
c.				to			
d.				to			
e.				to			

(REPRODUCED FROM STATE FORM)

PROGRAM CODE LIST

AREA		CODE NUMBER
PS	Partially Sighted	01
S&H	Speech and Hearing	02
D	Deaf	03
MR(E)	Mentally Retarded (Educable)	04
MR(T)	Mentally Retarded (Trainable)	05
PH	Physically Handicapped	06
S&E	Socially and Emotionally Maladjusted	07
NI	Neurologically Impaired	08
LD	Learning Disability	09
P	Pregnancy	10
G	Gifted	11
T	Talented	12

*****

All or Most of the above	13

(REPRODUCED FROM STATE FORM)

SPECIAL EDUCATION PERSONNEL TITLE CODE LIST

(Sec. 10.76f (b)

Professional Instructional: (School)

001 Special Education Teacher
002 Speech and Hearing Clinician
003 Resource Room Teacher
004 Home Instruction Teacher
005 Hospital Instruction Teacher
006 Itinerant Teacher
007 Nurse Teacher
008 Other

Professional Non-Instructional: (School)

101 Counselor
102 Psychiatrist
103 Psychologist
104 Psychological Examiner
105 School Social Worker
106 Nurse
107 Physician
108 Clinician
109 Other

Para-Professional: (School)

201 Special Services Aide
202 Teacher Aide
203 Secretary
204 Clerk
205 Other

(REPRODUCED FROM STATE FORM)

Consultative Services

300

Supervisory

401 Director of Pupil Personnel Services
402 Director of Special Education
403 Special Education Supervisor
404 Special Education Coordinator
405 Coordinator (Part-time)
406 Other

TABLE 1
SUMMARY OF DATA DEVELOPMENT STATUS
CONNECTICUT

DATA ELEMENTS			PUBLIC SCHOOLS			MENTAL INSTITUTIONS, HOSPITALS AND CLINICS			REGIONAL CENTERS			OTHER STATE HOSPITALS AND INSTITUTIONS*			PRIVATE SCHOOL DATA
			CURRENT STATUS	METHOD OF DEVELOPMENT	SOURCE OF DATA	CURRENT STATUS	METHOD OF DEVELOPMENT	SOURCE OF DATA	CURRENT STATUS	METHOD OF DEVELOPMENT	SOURCE OF DATA	CURRENT STATUS	METHOD OF DEVELOPMENT	SOURCE OF DATA	
NUMBER OF CHILDREN IDENTIFIED AS NEEDING SPECIAL EDUCATION	ENROLLED	AGE	Not available	Proposed Form II	Local professional staff with instructional assignment	Not available	Request by consultant for MR or use of forms proposed for public schools	Department of Mental Health	Not available	Request by consultant for MR or use of forms proposed for public schools	Regional centers through Office of Mental Retardation	Not available	Request by appropriate consultant or use of forms proposed for public schools	School superintendent	Not available
		HANDICAPPING CONDITION	Available (considerable time lag)	or		Partially available						Available			
		EDUCATION PROGRAM	Partially available	Modified ED-006, pp. 3, 5	Bureau of Research, Statistics and Finance										
	ON WAITING LIST	AGE	Not available	Form V	Local Director of Pupil Personnel										
		HANDICAPPING CONDITION	Not available												
NUMBER OF CHILDREN MOVING INTO AND OUT OF IDENTIFIED HANDICAPPED CHILD POPULATION	NEWLY DIAGNOSED AS NEEDING SPECIAL EDUCATION	AGE	Not available	Form V	Local Director of Pupil Personnel										
		HANDICAPPING CONDITION	Not available												
	INTRA-STATE TRANSFERS	AGE	Not available	Additional form in proposal package	Local Director of Pupil Personnel										
		HANDICAPPING CONDITION	Not available	or Modified ED-001, p. 12	Local Superintendent of Schools										
	ATTRITION FROM THE IDENTIFIED HANDICAPPED POPULATION	AGE	Not available	Additional form in proposal package	Local Director of Pupil Personnel										
		HANDICAPPING CONDITION	Not available	or											
		REASON	Partially available	Modified ED-001, p. 12	Local Superintendent of Schools										
YEARLY PROJECTIONS OF THE CHILD POPULATION, BY AGE			Available												
DATA USED TO SIMULATE SPECIAL EDUCATION	EDUCATION PROGRAM MIX TRENDS		Not available	Projection of the Bureau Chief and his consultants based on historical and anticipated trends											
	TYPES OF PERSONNEL AND PERSONNEL/PUPIL CONTACT RATIOS	TARGET GROUP	Available	Use of actual data and consultants experience	Annual reports										
		EDUCATION PROGRAM	Partially available												
OPTIONAL: NUMBER OF SPECIAL EDUCATION PERSONNEL EMPLOYED, BY TYPE			Available (considerable time lag)	Proposed Form II, III, and IV											

*Includes Mystic Oral School, American School for the Deaf, Newington State Hospital, and Norwich State Hospital.

DELAWARE STATE ANALYSIS REPORT

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The research reported herein was performed pursuant to Contract No. OEC 0-9-08928-0710 with the Bureau of Education for the Handicapped, Office of Education, U.S. Department of Health, Education, and Welfare. Contractors undertaking such projects under Government sponsorship are encouraged to express freely their professional judgment in the conduct of the project. The points of view or opinions stated do not, therefore, necessarily represent official Bureau position or policy.

DELAWARE STATE ANALYSIS REPORT

I. INTRODUCTION

Sponsored by the Bureau of Education for the Handicapped (BEH), Operations Research, Inc. (ORI) has developed a mathematical model that provides the framework for systematic consideration and evaluation of major elements contributing to the determination of special education manpower needs. The model has been designed for application by state education agencies and, when fully implemented, will assist each state in the systematic prediction of its own special education manpower needs, based upon individual state characteristics. The model will simulate present and future manpower needs under varying assumptions regarding changes in personnel/pupil contact ratios, the educational program mixes, the child participation rate, or any combination of these variables.

Following development of this Manpower Requirements Projection Model, a visit was made to each of the 50 state special education agencies in order to familiarize the states with the objectives of the program and to conduct a survey of current state information flow procedures. The purpose of the survey was to review and analyze the capability and potential for utilization of this model by the state agencies responsible for the education of handicapped children. The survey included an analysis of:

a. The capability of existing information flow processes to provide the necessary model input data

b. The existing automatic data processing capability to process the model program

c. The special education staff capability and desire to utilize the model.

This report presents the findings of the survey in the State of Delaware and contains recommendations pertaining to the establishment of information flow procedures for model utilization as well as to the improvement of general information availability for special education program management. The data development status is summarized in Table 1 at the end of this report.

II. SUMMARY

There presently exists only a very limited amount of data in the detail required by the model at the state level. However, much of the data required by the model can be readily developed via the reporting procedures either required by Delaware law or developed informally. Also, there exists a central state group charged with collecting and disseminating educational data which appears to be both capable and cooperative. Furthermore, the Director of Pupil Personnel (PPS) and Special Education Services has developed a rapport with various agency heads or executive directors that enables him to secure educational data from institutions and private schools at will.

The size of the state and the small number of reorganized school districts (25) should make data collection relatively easy.

An automated data processing (ADP) capability that will be able to summarize the data exists within the Delaware Department of Public Instruction. However, they are hardware limited, so the computer time required for the model itself will have to be secured elsewhere, probably the Department of Highways.

The Division of Pupil Personnel Services, which has special education responsibilities is limited in staff size and has no systems capability. Potential users of the model will have to be trained to prepare input to, and analyze results of a computer based model.

The attitude of all parties concerned was excellent. The progress achieved in the meetings between Division of Pupil Personnel Services and Research and Publications indicated a desire to proceed immediately with the design and modification of forms and the collection of initial data.

III. EDUCATIONAL RESPONSIBILITIES

The primary state education agency in Delaware is the Department of Public Instruction (see Figure 1) which is guided by the policies of the State Board of Education. The Department of Public Instruction has the responsibility for education in free public schools and in special schools as deemed necessary to meet special needs.

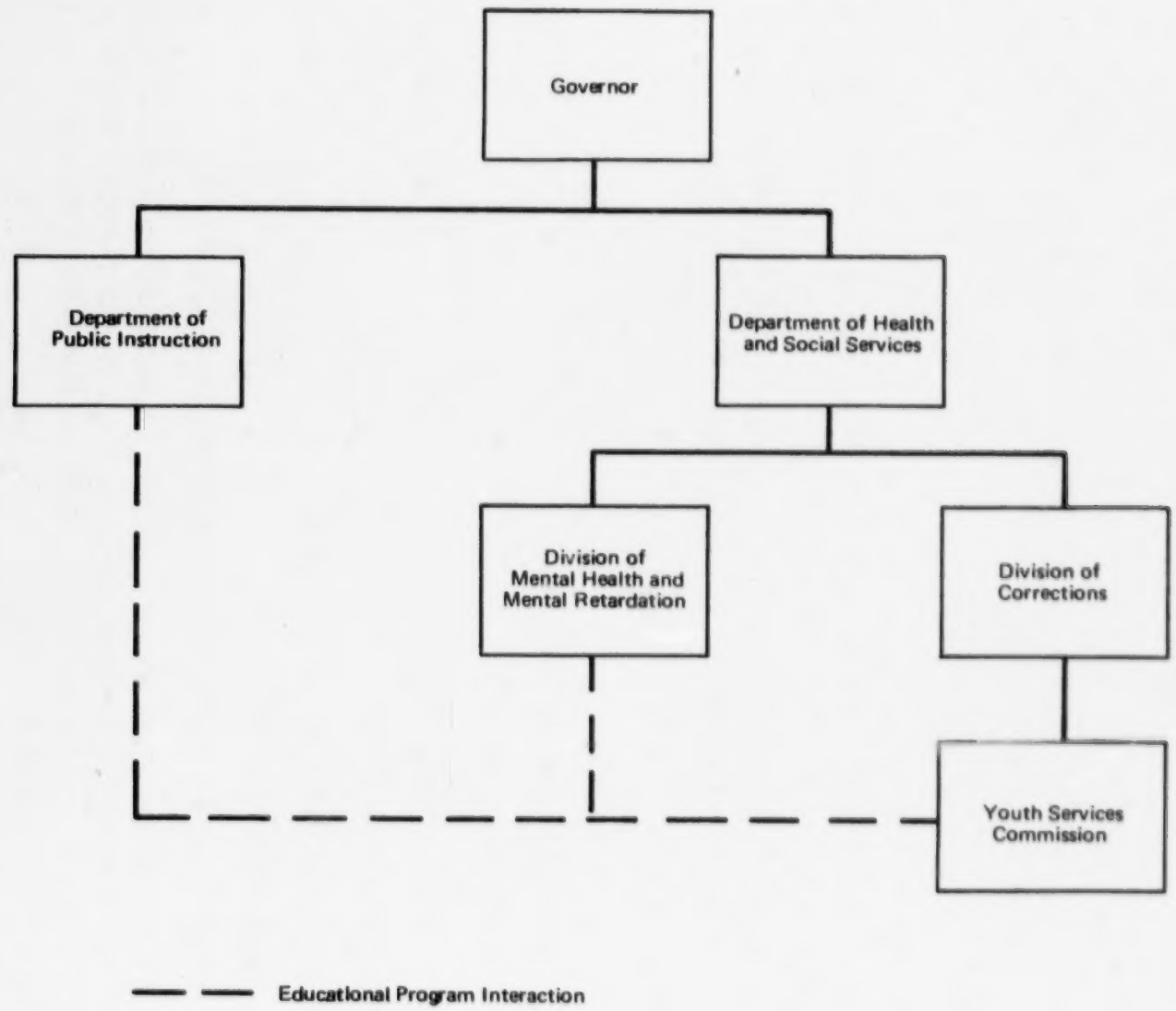

FIGURE 2. RESPONSIBILITY FOR THE EDUCATION OF HANDICAPPED CHILDREN IN THE STATE OF DELAWARE

Special education services are a responsibility of Pupil Personnel Services (PPS), a division of the Auxiliary Services of the Department of Public Instruction (see Figure 1).

The responsibilities of Pupil Personnel Services include:

- Guidance
- Federal programs for handicapped children
- Psychological services
- School nurses
- Special education programs in the public schools including homebound
- Programs for special schools
- Testing
- Consultation services to the Division of Mental Health and Youth Services Commission.

The handicapping conditions established by code for which Pupil Personnel Services has supervisory and administrative responsibilities are:

- Visually handicapped
- Hearing impaired
- Socially or emotionally maladjusted
- Educable mentally retarded
- Trainable mentally retarded
- Orthopedically handicapped
- Speech and hearing handicapped
- Special physical problems
- Special learning disabilities (enacted June 1969).

Also, the education programs conducted in the institutions of Division of Mental Health and in Youth Services Commission, Department of Health and Social Services (Figure 2) are subject to policies of the State Board of Education, specifically, Pupil Personnel Services.

The Youth Services Commission is responsible for offenders 18 years old and under, and has limited educational responsibilities. The only special education programs that exist in Youth Services Commission are conducted at Ferris School, Woods Haven-Kruse School, Bridge House, and the Stevenson House.

The Division of Mental Health has responsibility for education within the following institutions: Governor Bacon Health Center, Hospital for Mentally Retarded, Delaware State Hospital at Farmhurst, and Childrens' Psychiatric Hospital.

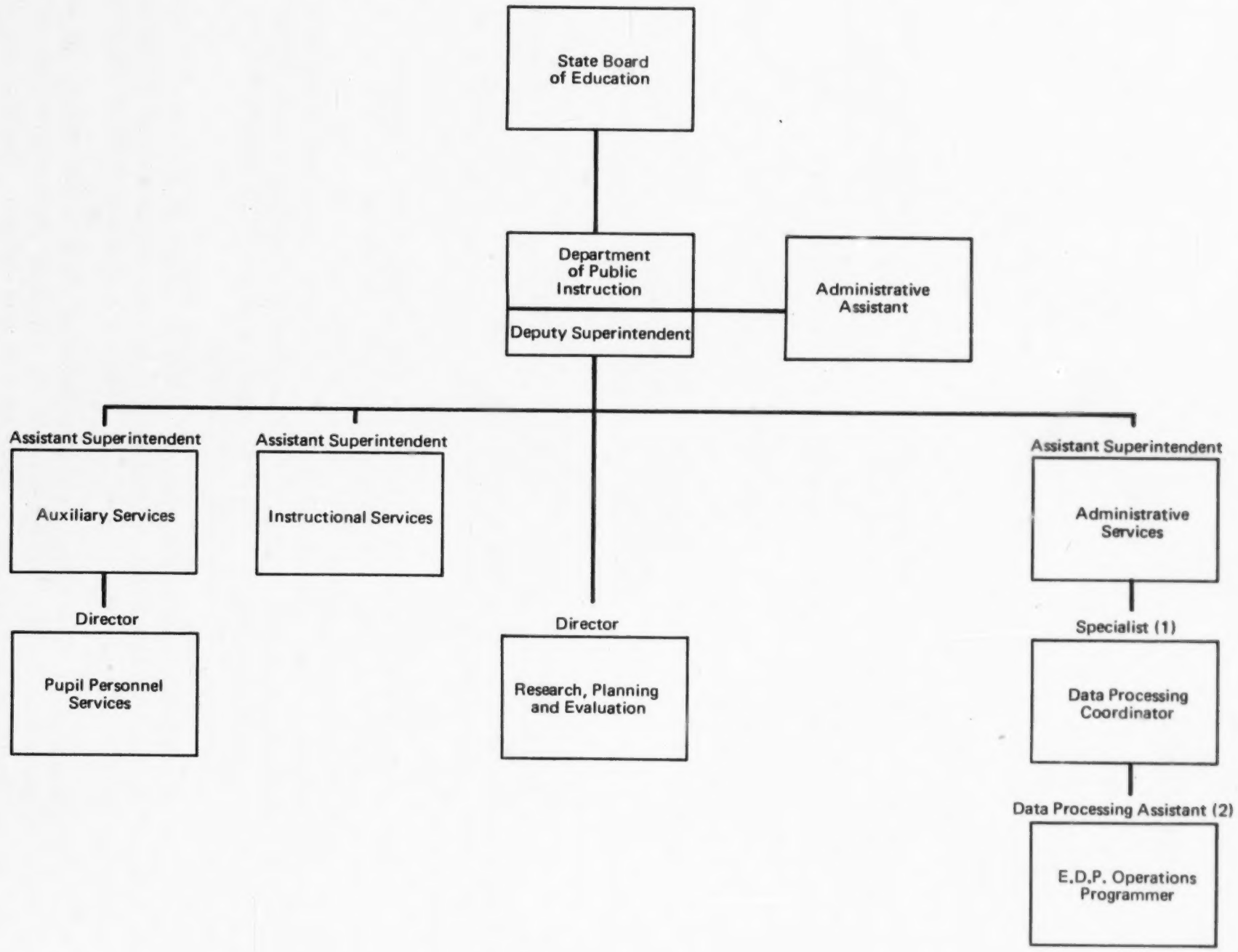

FIGURE 1. DELAWARE DEPARTMENT OF PUBLIC INSTRUCTION

Also, under the guidance of State Board of Health, the Commission for the Blind provides educational services that center primarily around the braille method of instruction for the legally blind.

IV. DATA ELEMENT EVALUATION

Some specific data elements are necessary to the use of the projection model. The information which these data elements provide may also be very useful to the Pupil Personnel Services for other operational analyses. These data elements and their potential sources are discussed in the following paragraphs.

Enrollment

The model requires information on enrollment in terms of these data elements. The number enrolled is needed by educational program, by type of handicap and by single year of age. Data is available by handicap condition for all exceptionalities except homebound which includes more than those requiring special education manpower. In no case is data available by single year of age. Although the educational program is not explicitly stated on the forms, it can be deduced in some cases.

Enrollment data is collected in accordance with legislation in an annual report. It is submitted to the Research and Publications Group on September 30 by the chief school officer of each district. The reporting of enrollment data in the annual report is done by unit or class size which is stiplulated by law for state reimbursement purposes. To meet the requirements of the model, however, single year of age of the students in these units must also be reported either as a subset of the unit or as an independent item. The former alternative would provide the state with information on how the ages were being combined in units for compliance purposes.

The educational program data are not available at the state level. This detail can be supplied in many instances by closer examination of the sources of data. In some cases, the data source may dictate the type of education program (e.g., a given public school district may use only cooperative special classes for educable mentally retarded). Where such equation is not possible, the sources will have to specify the educational program. This information in general can be developed without much difficulty.

The vehicle for collection of unit enrollment data is the annual report submitted in the beginning of the school year. The afore mentioned changes can be implemented in the reporting procedures which are established as follows.

Local Schools. The chief school officer in each of 26 organized school districts is required to submit the enrollment of children including handicapped by unit to the Division of Research, Planning and Evaluation, Department of Public Instruction by September 30 of each year.

State Residential Schools or Institutions. The Director of PPS receives, at his request, a report on enrollment from directors or heads of these agencies who have responsibility for special education.

Private Schools. These schools generally report handicapped enrollment the same way local schools do and again at the request of director of PPS.

Waiting List

The information on the children diagnosed as needing but not yet receiving special education is submitted to the state annually on or before May 15 as prescribed by 1969 Delaware School Laws, Section Number 3105. The form, entitled "Annual Census Report of Exceptional Children," (see Section X, page D8-16) is employed to collect these data. Again, single year of age is lacking, but the present report uses 3-year age groupings which can be refined to single year with relative ease.

There exists some confusion at the local levels about the intent of census reports according to the director of PPS. The observed inaccuracies of the data confirm his statement.

This same form can be employed to solicit similar information from other state agencies and institutions. Although other state agencies are not reporting this category, it could be collected on the basis of the PPS director's request.

This form is used to solicit data from private schools as well as public schools. However, the cover letter accompanying the form to the private schools is different (see page D8-18) from that for public schools (see page D8-19). This letter was revised for year 1968-69 and in the same year the number of exceptional children reported awaiting enrollment dropped to 0 from over 300 in the previous year. At this point it is not possible to determine whether previous reporting was inaccurate or the recent reporting was restricted by the wording of the cover letter which may have been considered self incriminating by the private school personnel.

Although the collection of waiting list data in the fall would be preferable from the model requirements standpoint, it is difficult in Delaware due to the mandatory state legislation. In addition, these data, as reported in the spring, may be deflated because the law mandates that the chief school officer provide special education resources for the handicapped children whom he must also identify.

Children Moving Into and Out of the Handicapped Population

Since the ultimate responsibility for diagnosing and placing the handicapped child is exercised by the Chief School Officer or his appointed representative, this is the logical individual to tap for the data on the newly diagnosed child. Diagnostic data are required by the model once a year and, preferably, at year end. The present "Annual Census Report of Exceptional Children" due at year end collects one group of those children newly diagnosed during the year; namely, the ones not placed. But the model requires the numbers of those diagnosed and placed as well. Rather than duplicate data collection

efforts with a new effort, the present form with modifications could be the vehicle for gathering the additional data required.

Age and handicap are required for both groups of diagnosed children. The present form provides for handicapping condition but to meet the additional requirements, the age grouping should be refined to single year of age. A placed/not placed distinction should be made available for each handicap in addition to noting the number of intra-state transfers. The routing of the form to public and private schools should remain the same, but the cover letter, the form title, and the completion instructions should be modified to reflect the changes.

No attrition data are collected in Delaware except for the speech and hearing category. In the 1968-69 school year, only those dismissed because of improvement in this category were recorded, while in previous years those dismissed for other reasons were also recorded. These data are reported in the Annual Report (page D8-19) of the speech and hearing therapists. Similar data for other handicapping conditions would have to be developed and reported from the local level, probably from teachers or clinicians themselves.

General Child Population Projections

The population projections for age children (ages 4-18 years) are available in the Division of Research Planning and Evaluation Department of Public Instruction.

Teacher/Pupil Contact Ratios

The teacher/pupil contact ratios are prescribed for most of the exceptionalities in the policies established by the Department of Pupil Personnel Services and approved by State Board of Education. The exceptions are the physical, occupational, and speech therapists treating the orthopedically handicapped. Although these ratios have not been mandated by Pupil Personnel policy due to extreme variations in type of treatment required, ratios based on experience could be developed for planning purposes.

Special Education Personnel

A data bank on educational personnel employed already exists in the educational data processing center. Included in the bank are following characteristics:

- School, district
- Position or occupation
- Name, age, sex
- Years experience

- Degree level
- Type of certificate
- Area of certification
- Salary.

The types containing this data are available for model use.

V. PROCESSING POTENTIAL

Hardware

There exists within the Department of Public Instruction a limited computer capability. An IBM 1401 Model G with a 16,000 word storage is the only computer within the department. The next most accessable computer with a sufficient memory core is an IBM 360/30 located within the Department of Highways. An agreement to use this computer would be necessary, but that did not appear to be an obstacle to the education Coordinator of Data Processing. A FORTRAN IV compiler is available within the Department of Public Instruction (DPI).

There was repeated emphasis on the use of an IBM 1232 scanner available in the DPI Data Processing Center. Any form designed for use within this department will have to be capable of being scanned with this equipment.

Personnel

A limited amount of programming and key punch services are available from the education department. But, if the IBM 360/30 of the Highway Department is employed, the programming and key punch capability of these personnel would be used, and this might be difficult to arrange.

Within Pupil Personnel Services there appears to be no individual experienced in preparing data input and analyzing the results of the model. Within the Data Processing Group of the Department of Public Instruction there are several candidates for data input preparation and data analysis.

Acceptance of Model Concept

The attitude of all parties interviewed was favorably disposed toward the use of the model and its implementation. In fact, upon completion of the survey in Delaware, the Division of Pupil Personnel Services and Research and Publication Group were already discussing content and form of data collection devices to gather some of the data, possibly, this year and, hopefully, no later than next year.

VI. ADDITIONAL FACTORS

The size and population of Delaware are such that data collection should not be a difficult task. There are only 26 school districts that have to be contacted. The relationship established among Pupil Personnel Services and other state groups with special education programs will also facilitate data collection and model implementation.

The development and reporting of an accurate and comprehensive waiting list by the local school districts to the state is impeded by the Delaware School Laws. Section Number 3103 of the school laws requires the local school district to provide for those children recommended for special education or training. The referral and diagnostic procedures outlined in Section Number 3105 in effect transfers the responsibility for recommending those children requiring special education to the chief school officer or his representative of the local education agency who must also provide the special program and facilities. As a result of these combined duties there is a tendency among these school officers to identify only those children for whom space is available.

VII. RECOMMENDATIONS

The following recommendations would, upon implementation, provide for the information flow of data elements necessary to manpower projection model utilization and improve the quality and quantity of information available for special education program management.

To achieve basic implementation of this model in the State of Delaware it is recommended that:

1a. A new form be developed in conjunction with the Division of Research, Planning and Evaluation (the sole authorized education data collection agency) to collect enrollment data in each special education program by single year of age within each handicap group. The form should be compatible with the scanning equipment located in the data processing center.

1b. The present form be replaced with the proposed form in the annual enrollment data collection process for the public schools conducted in September through the chief school officer in each local education agency. This process is authorized by Delaware School Law 121 (6).

1c. Request the other state agencies conducting special education programs to supply enrollment data with the proposed form.

1d. Replace the present form with the proposed form in the enrollment data collection conducted in the private schools. This process is authorized by Delaware School Law 2704.

2a. The "Annual Census Report of Exceptional Children" employed in the spring to collect data on identified children not being served be modified in conjunction with the Research and Publication Group in the following ways:

- Scope of report be broadened to indicate data on all children diagnosed during the year but allowing a distinction to be made between those placed and those awaiting services.
- The source (e.g., intra-state transfers) of recently identified handicapped children be provided possibly by coding various possibilities.
- The age groupings be refined to single year of age.
- The form be made compatible with the present scanning equipment.

2b. A change in the title of the "Annual Census Report of Exceptional Children" be made to reflect the reporting of data on children diagnosed. Also a brief statement of intent should be invluded <u>on the form</u> in addition to that on the cover letter which often is not seen by the individual completing the form.

2c. The cover letters be changed to reflect the modification, and the private school cover letter be changed to avoid possible self incrimination interpretations by private school officials.

2d. The form and cover letter proposed to collect diagnostic replace the present documents in the reporting required for submission to Pupil Personnel Services by May 15. Present sources of these data via the above forms are limited to chief school officers of public schools and heads of private

schools. However, reporting of newly identified handicapped children is specifically required of all educational personnel on this date as well as at other times during the year in Delaware School Law 3105. Other sources may be necessary if the observed inaccuracies and discrepancies in both public and private school sources are not eliminated by the above recommendations.

3a. That attrition rates be developed for all handicapping conditions. In 1967-68 attrition due to both improvement and "all other" reasons were collected for speech and hearing. Only improvement type attrition was collected in 1968-69.

3b. The "Speech and Hearing Therapy Report" be amended to include the attrition due to "all other" category and distributed in the present manner.

3c. A new form be developed to collect attrition information by age and handicap for all exceptionalities other than speech and hearing.

3d. This proposed form be used to collect data at year end from all teachers and therapists conducting special educational programs.

4. The future mix of enrollments by educational program be projected by Pupil Personnel Services based on historical enrollment patterns, policy changes, or other factors which would affect emphasis on the educational programs provided in the state.

5. The Department of Public Instruction develop an agreement with another state agency, probably the Department of Highways, to use a computer with 32K memory core and a FORTRAN compiler.

To achieve improvement of quality and quantity of information developed, the following considerations are also offered:

1. The existing and proposed forms will provide the data required by the Manpower Requirements Projection Model. However, the reliability and consistency of the data may be improved if the personnel completing the form had some additional guidance and reinforcement. This may be accomplished in several ways:

a. Prepare user instructions for the completion of the forms recommended. Explain the need and purpose of the data in addition to defining the terminology.

b. When visiting the local districts and conducting workshops, discuss the forms and their use. Also discuss the model and its benefit to the state and local special education.

2. The current prevalence rates should be reviewed to determine if they reflect the state experience and modified as required based on experience and state studies including the 1965-1966 orthopedic screening and analysis effort.

VIII. RESOURCE REQUIREMENTS—MANPOWER

The limited staff for special education at state level in Delaware will require assistance in implementing the recommendations made in Section VII. In addition to the cooperation and assistance of the various state and local agencies which will be needed in implementing and operating the educational manpower requirements model, systems analysis capability will be required in both phases. This talent will be required at the time of implementing to aid in forms design and modification and system design and programming. In addition, the systems analyst(s) should assist in training state and local personnel, writing procedures, and coordinating technical aspects among the various groups exchanging data and results. It is estimated that the manpower required will be 2 man-months of special education staff effort, 1 man-month for forms design, 2 man-months of systems analyst work, and $1\frac{1}{2}$ man-months for programming over a two year span to effect the recommendations necessary for implementation phase.

During the operation of the system, once system implementation is achieved, $1\frac{1}{2}$ man-months of combined effort per year will be required to ensure quality control and to refine and improve data flow as well as updating the training of the suppliers to and users of the model.

A possible source of this systems analysis talent is the central data processing center but, more likely, a private contractor will be required.

IX. PERSONS INTERVIEWED

The persons interviewed by Operations Research Inc. (Leasco) representative, Mr. Joseph Kelly, during the week of 16 August 1969 were:

Dr. Howard E. Row	Assistant State Superintendent of Auxiliary Services, Delaware Department of Public Instruction
Mr. John S. Charlton	Director of Pupil Personnel Services, Delaware Department of Public Instruction
Mr. Richard Connell	Supervisor, Federal Program for Handicapped Children, Pupil Personnel Services, Delaware Department of Public Instruction
Mr. James Wiggins	Supervisor of Guidance Services, Pupil Personnel Services, Delaware Department of Public Instruction
Mrs. Edith Vincent	Supervisor School Nurses and Health Program, Pupil Personnel Services, Delaware Department of Public Instruction
Dr. Georgia Lightfoot	Supervisor Special Class Program, Pupil Personnel Services, Delaware Department of Public Instruction
Mr. Harry Peyser	Research and Publications Group, Delaware Department of Public Instruction
Mr. Joseph Hadley	Coordinator of Data Processing, Delaware Department of Public Instruction
Mr. Richard French	Recently—Supervisor of Speech and Hearing and Physically Handicapped Programs, Pupil Personnel Services Now—Director of Pupil Personnel Services for New Castle-Grunning Bedford School District
Dr. Lloyd	Director of Teacher Education and Professional Standards, Delaware Department of Public Instruction

X. CURRENT REPORT FORMATS

Included in this section are the existing forms being used in Delaware for collecting information that is pertinent to the needs of the model as described in the preceeding sections.

Title	Agency
1) Annual Census Report of Exceptional Children	Division of Pupil Personnel Services
a. cover letter to private school officers	Division of Pupil Personnel Services
b. cover letter to public school officers	Division of Pupil Personnel Services
2) Speech and Hearing Therapy Report	Division of Pupil Personnel Services

STATE OF DELAWARE

DEPARTMENT OF PUBLIC INSTRUCTION
DOVER, DELAWARE 19901
302-734-5711

Division of Pupil Personnel Services
Statistical Summary
Annual Census Report of Exceptional Children

CATEGORY	AGE GROUP						TOTAL
	4-6	7-9	10-12	13-15	16-18	19 & over	
Unduplicated count of all children reported by district							
1. Blind							
2. Partially Sighted							
3. Deaf							
4. Hard of Hearing							
5. Speech Defect							
6. Orthopedically Handicapped							
7. Talented							
8. Socially-Emotionally Maladjusted							
9. IQ of 50 or below							
10. IQ between 51-75							
11. IQ of 120 or above							
12. Unable to attend school							
13. Children temporarily and legally absent for 4 or more consecutive weeks.*							

(REPRODUCED FROM STATE FORM)

* (Do not include children absent for disciplinary reasons.)

STATE OF DELAWARE

DEPARTMENT OF PUBLIC INSTRUCTION

DOVER, DELAWARE 19901

302-734-5711

KENNETH C. MADDEN
STATE SUPERINTENDENT
PUBLIC INSTRUCTION

F. NIEL POSTLETHWAIT
DEPUTY STATE SUPERINTENDENT

June 4, 1969

ROGER C. MOWREY
PAUL M. HODGSON
HOWARD E. ROW
ASSISTANT SUPERINTENDENTS

Private School Officers

Dear Sirs:

The Annual Census Report of Exceptional Children is again being made by this office and your cooperation is solicited. By the very nature of your school program however, it may be that you have no children who fit the category of those "who, because of apparent exceptional physical or mental conditions, are not now being properly educated and trained".

Your response to the Census last year appears to bear this out. Nevertheless, so that we could conclude that our records are complete, may we ask you to complete the enclosed Census Report if applicable. If not, please check the statement below so indicating and return to this office in the stamped, self-addressed envelope.

Sincerely yours,

(REPRODUCED FROM STATE FORM)

Richard L. Connell
ESEA, Title VI Coordinator

RLC/jmc

Encl.

☐ There is no child attending the school "who, because of apparent exceptional physical or mental condition, is not now being properly educated and trained".

STATE OF DELAWARE

DEPARTMENT OF PUBLIC INSTRUCTION
DOVER, DELAWARE 19901
302-734-5711

(REPRODUCED FROM STATE FORM)

April 9, 1969

TO: Chief School Officers

FROM: John S. Charlton, Director

RE: Annual Census Report of Exceptional Children - DUE MAY 15

Enclosed is a supply of Annual Report of Exceptional Children forms for your use in determining exceptional children in your school district whose special educational needs are NOT NOW being provided for in special classes or programs. These forms are being sent to you for distribution in your district. On the basis of data gathered on these forms, please complete a statistical summary form (enclosed) for each of the schools in your district. Return the statistical form ONLY on or before May 15, as stated in Delaware Code of 1957, Title 3105, Chapter 31, to:

Mr. John S. Charlton, Director
Pupil Personnel Services
State Dept. of Public Instruction
P. O. Box 697
Dover, Delaware 19901

The printed Census Report form is to be kept in your files and is not to be returned.

It is imperative that every exceptional child whose special educational needs are NOT NOW being met in special classes or programs be reported since such information will be important for implementation of all federal programs for handicapped children, especially ESEA, Title VI-A.

To determine appropriate exceptionality refer to criteria for exceptional classifications on reverse side of printed report form. STRICT COMPLIANCE WITH CRITERIA IS ABSOLUTELY NECESSARY.

If you have any questions, please feel free to contact this office (734-5711, Ext. 445 or 446).

JSC/jmc

Encls.

STATE DEPARTMENT OF PUBLIC INSTRUCTION
Division of Pupil Personnel Services
Dover, Delaware

SPEECH AND HEARING THERAPY REPORT

ANNUAL REPORT

_____
Therapist's Name

_____ _____
District(s) of employment Building in which your office is located

Number of audiometric tests administered . . . . . ____

Number of pupils referred to school nurse for audiologic/otologic follow-up . . . . . ____

Number of speech evaluations administered . . . . . ____

Number of ARTICULATION cases receiving therapy . . . . . ____

Number of STUTTERING cases receiving therapy . . . . . ____

Number of VOICE cases receiving therapy . . . . . ____

Number of HARD OF HEARING cases receiving therapy . . . . . ____

Number of "OTHER" cases receiving therapy . . . . . ____

Total number of pupils receiving therapy . . . . . ____

Number of pupils dismissed as improved . . . . . ____

REMARKS:

(REPRODUCED FROM STATE FORM)

Send Report to: State Department of Public Instr.
Div. of Pupil Personnel Services
Box 697
Dover, Delaware 19901

at the end of the school term in June.

RBI/bb
9/24/68

TABLE 1
SUMMARY OF DATA DEVELOPMENT STATUS FOR DELAWARE

DATA ELEMENTS			PUBLIC SCHOOLS			INSTITUTIONS			PRIVATE SCHOOLS	
			CURRENT STATUS	METHOD OF DEVELOPMENT	SOURCE OF DATA	CURRENT STATUS	METHOD OF DEVELOPMENT	SOURCE OF DATA	CURRENT STATUS	METHOD OF DEVELOPMENT
NUMBER OF CHILDREN IDENTIFIED AS NEEDING SPECIAL EDUCATION	ENROLLED	AGE	Not available	Change current enrollment reporting to Research and Publications Group on September 30	Chief school officer	Not available	Extend modified forms for public schools to state residential schools or institutions for September 30 reporting	Director or superintendent	Not available	External modified forms for public schools to private schools for September 30 reporting
		HANDICAPPING CONDITION	Available							
		EDUCATION PROGRAM	Available only for EMR							
	ON WAITING LIST	AGE	Only three year age groupings available	Modified present May 15 reporting	Chief school officer		Use proposed modified form for public schools	Director or superintendent		Use proposed modified form for public schools
		HANDICAPPING CONDITION	Available but data is inaccurate							
NUMBER OF CHILDREN MOVING INTO AND OUT OF IDENTIFIED HANDICAPPED CHILD POPULATION	NEWLY DIAGNOSED AS NEEDING SPECIAL EDUCATION	AGE	Not available	External scope of waiting list form due on May 15	Chief school officer		Use proposed modified form for public schools	Director or Superintendent		Use proposed modified form for public schools
		HANDICAPPING CONDITION	↓							
	INTRA-STATE TRANSFERS	AGE		Note source of child on May 15 form	Chief school officer (school secretary)		Use proposed modified form for public schools	Director or Superintendent		Use proposed modified form for public schools
		HANDICAPPING CONDITION	↓							
	ATTRITION FROM THE IDENTIFIED HANDICAPPED POPULATION	AGE	Not available	Develop new form	Teacher or therapist of each unit		Use proposed modified form for public schools	Director or superintendent		Use proposed modified form for public schools
		HANDICAPPING CONDITION	Available only for Speech and Hearing							
		REASON	Available only for Improvement			↓			↓	
YEARLY PROJECTIONS OF THE CHILD POPULATION, BY AGE			Available in Research and Publication Group							
DATA USED TO SIMULATE SPECIAL EDUCATION	EDUCATION PROGRAM MIX TRENDS		Not available	Can be estimated	Director and staff of Pupil Personnel Services					
	TYPES OF PERSONNEL AND PERSONNEL/PUPIL CONTACT RATIOS	TARGET GROUP	Stipulated in State Policy	Develop actuals from historical data	Director and staff of Pupil Personnel Services	Not available	Develop actuals from historical data	Director or superintendent	Same as public schools	
		EDUCATION PROGRAM	Except Visually Impaired and some occupations treating Orthopedically Handicapped			↓		↓	↓	
OPTIONAL: NUMBER OF SPECIAL EDUCATION PERSONNEL EMPLOYED, BY TYPE			Available			↓		↓	↓	

FLORIDA STATE ANALYSIS REPORT

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The research reported herein was performed pursuant to Contract No. OEC 0-9-08928-0710 with the Bureau of Education for the Handicapped, Office of Education, U.S. Department of Health, Education, and Welfare. Contractors undertaking such projects under Government sponsorship are encouraged to express freely their professional judgment in the conduct of the project. The points of view or opinions stated do not, therefore, necessarily represent official Bureau position or policy.

FLORIDA STATE ANALYSIS REPORT

I. INTRODUCTION

Sponsored by the Bureau of Education for the Handicapped (BEH), Operations Research, Inc. (ORI) has developed a mathematical model that provides the framework for systematic consideration and evaluation of major elements contributing to the determination of special education manpower needs. The model has been designed for application by state special education agencies and, when fully implemented, will assist each state in the systematic prediction of its own special education manpower needs, based upon individual state educational characteristics. The model will simulate present and future manpower needs under varying assumptions regarding changes in personnel/pupil contact ratios, the educational program mixes, the child participation rate, or any combination of these variables.

Following development of the model, a visit was made to each of the 50 state special education agencies in order to familiarize the states with the objectives of the program and to conduct a survey of current state information flow procedures. The purpose of the survey was to review and analyze the capability and potential for utilization of this model by the state agencies responsible for the education of handicapped children. The survey included an analysis of:

a. The capability of existing information flow processes to provide the necessary model input data

b. The existing automatic data processing capability to process the model program

c. The special education staff capability and desire to utilize the model.

This report presents the findings of the survey in the State of Florida, and contains recommendations pertaining to the establishment of information flow procedures for model utilization as well as to the improvement of general information availability for special education program management. The data development status is summarized in Table 1 at the end of this report.

II. SUMMARY

Florida's Exceptional Children Section, Department of Education, is currently receiving detailed data from the counties containing special education programs and general data from some of the state operated special education programs, but the set of data elements collected is incomplete for Manpower Requirements Projection Model needs. There is a high probability that all of the detailed data needed is maintained at the county school system level and at the state schools and institutions. Thus, using the good rapport and the existing data flow between the county and state data sources and the Exceptional Children Section upon which to build, Florida should have little problem developing a more complete and automated information system relating to the handicapped child population. A possible minor problem could arise in an attempt to develop a data flow about certain exceptionalities between the counties (and similarly, from the individual schools to the counties) who do not provide any special education services for those exceptionalities and the Exceptional Children Section. If a recent state reorganization does not adversely affect the schedule for the necessary data collection, a data summary type of special education information system has a high probability of being developed and implemented in a relatively short period of time. Such an information system would support the Manpower Requirements Projection Model and other tools used to formulate plans, to aid the decision-making process, and to form a basis for program evaluation.

The proposed information system should result in successive improvements in the completeness and the accuracy of the data elements with such validity being achieved within a few years at the most. Later documents pertaining to this project will contain more information about methods which may be used to estimate some of the data elements until a good information flow is developed and validated.

Florida's special education programs fill a greater percentage of estimated need than the programs in many other states. The result of using the model here should be examined with an eye toward generalizing about its applicability, utility, practicality, and confidence limits.

The data processing hardware maintained by the Data Processing Section of the Department of Education and available for use by the Exceptional Children Section has the capability of handling an automated special education information system containing the model input data processing program and of handling the programmed model itself. The staff of the Data Processing Section is capable of designing and programming such an information system and can operate the model; however, their availability is limited. The staff of the Exceptional Children Section is capable of preparing the input for and analyzing the results of the model.

III. RESPONSIBILITIES FOR SPECIAL EDUCATION

The primary state agency providing special education services in Florida is the Department of Education, whose chief representative in the state hierarchy is an elected Commissioner. Within this department's Division of Elementary and Secondary Education, the Exceptional Children Section of the Bureau of Curriculum and Instruction has responsibility for approving, overseeing, and receiving reports about the operation of special education programs in the local administrative units. However, the Section does not specifically have curriculum control.

The Exceptional Children Section (which consists of a Director and nine staff consultants) deals directly with the local administrative units, one for each county, termed a county school system. Of the 67 counties in Florida, 40 have a full-time Director of Special Education and 27 have a part-time Coordinator of Special Education. The responsibilities of these positions include maintenance of adequate procedures for identification and placement of pupils in need of special education, supervision of attendant record keeping, and preparation of reports for the Exceptional Children Section about the conduct of county school system programs.

Responsibility for state operated special education services is dispersed between two state agencies and among four divisions. The Florida State School for the Deaf and Blind, located in St. Augustine, has division level status within the Department of Education. Within the Department of Health, Welfare, and Rehabilitation, the Division of Mental Retardation operates six state residential schools and community programs, the Division of Mental Health operates the mental hospitals (only one of which has any form of educational program), and the Division of Youth Services operates institutions and shelters for children detained by the courts for truancy as well as serious crimes. Most of the services provided by the latter two divisions are psychological and counseling rather than special education.

The organization chart depicting the foregoing description is presented in Figure 1.

Since the two state agencies responsible for special education programs report to different and independent portions of the Florida government, there are no formal responsibility links, and any interdepartmental liaison is informal and voluntary. Currently information is transmitted between these departments on an "as requested" basis.

IV. DATA ELEMENT EVALUATION

In 1969-70, some special education services were provided some local schools in all of the 67 Florida county school systems. With such a large and still fast-growing program, it is important to develop a detailed information system to enable the staff of the Exceptional Children Section to make any needed policy decisions as rapidly as possible and to enable the county Director or

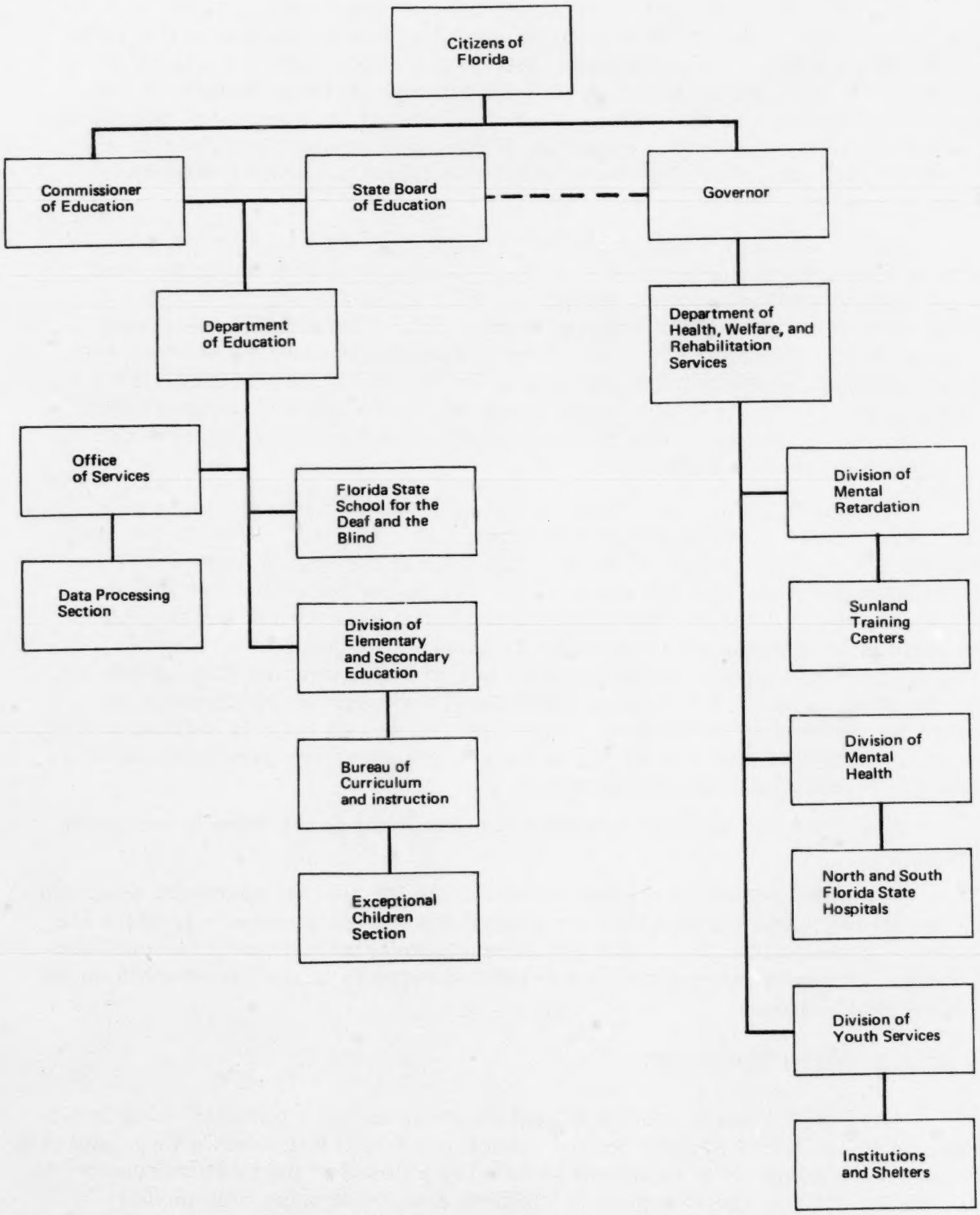

FIGURE 1. FLORIDA ORGANIZATION CHART RELATING TO SPECIAL EDUCATION

Coordinator of Special Education to make operating decisions. Currently, all of the data received by the Exceptional Children Section about county operated special education is reported by the county representative. Data for state operated programs are not formally reported to the Exceptional Children Section but could be requested from the administrators of the schools and institutions.

Some counties currently receive data from private schools on a voluntary basis. With the cooperation of the private special education program administrators, data about all these programs could be reported to the respective counties on a voluntary basis. These data could then be incorporated into the data that the county school systems send to the state.

In the following paragraphs, the data elements needed by the Manpower Requirements Projection Model and by the state for planning purposes are discussed in terms of their availability and development potential. Since the state personnel interviewed did not consider it necessary to maintain data by child name at the state level, the development of each data element should fit into the framework of a data summary type of information system (e.g., data reported in totals by age and exceptionality) rather than a modified pupil accounting system. Such development would be an expansion of the currently existing data summary system. If it is decided at some later date to switch to a modified pupil accounting system, good reference works on the subject would include the dissertation of Dr. Landis M. Stetler, the current Director of the Exceptional Children Section.

Identified Handicapped Population

For local (county) public programs, the number of children enrolled in special education, the first component of the most important data element (the number of children identified as needing special education), is currently estimated in the spring for the following fall and is reported for each class unit at mid-school year (Jan.-Feb.) in gross form, i.e., ADM or AWM instead of actual number of children enrolled, by the Director or Coordinator of Special Education in each county school system. The enrollment estimates for each new or continued class are contained on a form entitled "Application for State Exceptional Child Instruction Unit" (see page D9-16), which must be received at the state level by July 1; these estimates are by exceptionality and type of class (or educational program) but cannot be broken down by age because the actual children who will be served are not determined until fall.

As part of an overall education information system, each county school system must prepare a series of annual reports. The "Annual Report, Education for Exceptional Children" (see pages D9-17 thru 21), currently an 18 (or more) page form, must be returned to the Exceptional Children Section by mid-March. Each exceptionality and educational program (type of class) is reported, by class, on a separate matrix-like format that contains ADM or AWM for January, the age range of the class, and the waiting list as of February 1. Speech Therapists additionally report their weekly and yearly caseloads and the number of children served.

In order to report enrollments by age, the counties will need either a modification of the current Annual Report form (an unlikely event, considering its size) or an addition to it. In either case, some of the county school systems would be requested to process signficant amounts of data before reporting the county summary to state level; e.g., Dade County, with 124 EMR classes (1968-69) would have a total of about 330 special classes and about 1500 numbers to tally (using a range of 4 to 5 chronological years per class). On average, however, a county school system provides about 15 or 20 classes, so that the county-level processing will not be overly demanding. Given sufficient advance knowledge that a request for enrollments by age will be made, the county Director or Coordinators of Special Education can arrange for the data to be retained in a similar format within his office.

A simple matrix form could be used for the county school systems to report such data to the state, and, if the matrix were printed on the reverse side of the current forms in the Annual Report, the request would not add to the physical bulk of the report.

An alternative manner of reporting enrollments by age would be a state-level tally of class figures. This presents serious difficulties, however. First, since Exceptional Children Section currently deals with the county school systems directly, never with individual schools or classes, a significant change in policy would have to be made to effect the reporting of data directly from the local classes to the state. Second, the state would have a significant administrative problem regarding both recognition of "complete" sets of class reports from any one county school system and lack of "feel" for accuracy and completeness of numbers appearing on any one report. And third, to spend a total of even five minutes on each of the 2300 classes in the state (1968-69) would require more than seven man-weeks (using a 2/3 efficiency factor)—receiving and sorting documents, preparing interim totals, comparing with check figures, and keeping track of the total bulk will probably not average less than five minutes per class. Automatic data processing would relieve much but by no means all of this burden, would in addition require approximately $1\frac{1}{2}$ man-weeks of keypunch/verify time, would not be necessary for many of the county school systems, and would not deal with the first and second difficulties mentioned above.

Currently, the number of children on special education waiting lists, the second component of the identified handicapped child population, is reported in grant total form on the Annual Report. It should not be too difficult for the county school systems to report this data by single year of age because, presumably, they or the local schools have a file for each child on the waiting list. If the abovementioned matrix is used to collect enrollment data by age, a one line addition to that matrix could be used to collect the waiting list data by age.

A set of similar matrix forms could be used by the Exceptional Children Section to request enrollment and waiting list data from the state-sponsored special education programs and could be used by the county Directors and Coordinators to request these data from private programs. A validity problem may

arise with the latter data element if the state and private programs do not maintain current (updated at least annually) waiting lists. For example, it is possible that a non-current waiting list at a state school would contain a large proportion of children who are being served in county programs or who have moved out of the state. If it is determined that this is the case, the request for such state and private waiting list data could be dropped.

Unidentified Handicapped Population

Since no complete and systematic diagnostic referral system now exists at the state or local (county) level in Florida, data on the unidentified handicapped child population will probably have to be estimated using the prevalence rates that the Exceptional Child Section now uses rather than an estimate of the diagnostic waiting list and the potential undiagnosed population. These prevalence rates, modifications (based on experience and expert opinion) of BEH published rates, are:

- Intellectually disabled-educable—2.0%
- Severely intellectually disabled-trainable—.25%
- Socially maladjusted — 2.0%
- Emotionally disturbed — 1.0%
- Specific learning disabilities — 1.0%
- Visually handicapped — 0.09%
- Deaf *— 0.1%
- Speech impaired *— 5.0%
- Physically handicapped (motor disabled)—0.5%.

* Hard-of-hearing is distributed over the Deaf and Speech Impaired figures.

Using prevalence rates is an interim method of estimating the total handicapped child population. These rates are a starting point for such an estimation, but to be useful in the long run, not only for applying the model but for other state planning purposes, they should be validated with actual data. Such validation can be done by collecting appropriate data and making successive approximations. Later documents pertaining to this project will contain more detailed descriptions of alternative methods of validating these rates.

Entrants and Attritions

Information about the numbers of children moving into and out of the identified handicapped child population is not currently collected. However, incorporating a request for such data on new entrants (used to calculate incidence rates) and attritions into the form and format of the reporting of enrollment and waiting list data by age should be easy and would be a reasonably efficient manner of reporting the data.

Data about new entrants should be separated into two sub-categories: children who are newly diagnosed and children who are intrastate transfers. The latter sub-category should be reported separately so that the true rates of incidence are not obscured. In Florida, most of the diagnosis is conducted and recorded at the county school system level; one of the responsibilities of the Directors and Coordinators of Special Education is the maintenance of adequate procedures for identification of exceptional children. Thus, the county school systems that do not currently request such data about the two sub-categories of entrants from the local schools can either use their own central files to compile the data or can initiate a request for the data from the local schools. Convenient for the latter purpose (if the data is not kept in county records) would be a report format very similar to that recommended in Section VII (RECOMMENDATIONS) for the county's use in transmitting the data to the Exceptional Children Section.

All other diagnosis is conducted at the state schools and institutions. Data about these diagnoses could be reported on a cooperative basis either to the appropriate county school system or directly to the Exceptional Children Section.

Information about attritions from the total identified handicapped child population (by age; exceptionality; and reason for attrition, e.g., return to full-time regular education, moved out of county) should be easy to develop if the cooperation of the county school systems and of the state schools and institutions is obtained.

Entrants and attrition data should be kept by, and collected from, the county school systems for the total identified handicapped population, not for the enrolled and waiting list populations separately. This will avoid possible double counting; a child who moves from the waiting list to the enrolled list should not be counted as an attrition or a new entrant—he has remained in the handicapped child population and merely changed his educational status.

Simple matrix forms, similar to those suggested in Section VII for county reporting of the data, could be used by the Exceptional Children Section to request entrants and attrition data from the state-operated and privately-operated programs. There again, unless the state programs maintain up-to-date waiting lists, the validity of entrants and attrition data (especially these data relating to children on those waiting lists) may suffer.

Other Data Elements

The analyst was not able to determine which, if any, agency makes projections of Florida's school age population, used in conjunction with incidence rates by the Manpower Requirements Projection Model to calculate the projected number of new entrants into the handicapped child population. Additional state agencies, (e.g., the Department of Finance) and other sources (e.g., School of Business Administration at University of Florida) should be contacted to determine the possible existance of reliable and detailed (i.e., by age) school age population projections.

The Director of the Exceptional Children Section and/or his staff of consultants can provide the data needed to simulate special education with a minimum of reporting of program policy from state operated and privately operated programs. Thus, no further development effort is needed for these data elements:

- Trends in the number or proportion of enrolled children being served in each educational program, by target group (an educationally meaningful combination of handicapping condition and education level); termed educational program mix
- The types of personnel (occupations) serving each target group in each educational program and their associated personnel/pupil contact ratios.

If Florida wishes to tabulate the numbers of special education personnel employed, by type, in order to calculate the current manpower gap, the data is available (assuming that paraprofessionals are reported as "other personnel") on the Annual Report by personnel name. The number of personnel employed in state operated and privately operated special education programs could be requested to be reported to the Exceptional Children Section either on a simple matrix form or informally in a letter.

V. PROCESSING POTENTIAL

The Florida Department of Education has for its exclusive use an IBM System 360/Model 40, which is more than adequate to handle a special education information system and the programmed Manpower Requirements Projection Model. The hardware system and support services are maintained by the Data Processing Section, a group including 20 professionals, in the Office of Services. This staff is capable of performing all the systems analysis and computer programming but existing priorities severely limit their availability. At this writing, outside services will probably have to be contracted to perform these tasks for a special education information system. While FORTRAN is available on a 360/40, PL-1 is used almost exclusively. In addition to the computer, the Data Processing Section maintains standard unit record (card) equipment and adequate keypunch facilities.

Dr. Stetler, the Director of the Exceptional Children Section, and his staff have been making their own manpower projections for a few years but indicated a willingness to use the Manpower Requirements Projection Model for this purpose. The staff feels that reporting of statistics by pupil age will eventually be standard and that Florida should begin such reporting in the near future. The model itself is not expected to differ significantly from any other long range planning system in its importance and usefulness to the Section. Dr. Stetler and his staff are capable of preparing the input for and analyzing and evaluating the output from such a model and indicated a willingness to undertake any work necessary to assist and direct the implementation of a more detailed special education data collection and processing system. The staff of the Data Processing Section is certainly competent to handle, prepare, and operate the model and any ancillary programs.

VI. ADDITIONAL FACTORS

In July of 1969, a new state constitution went into effect, reducing the number of state agencies from over 200 to under 25. One temporary result has been the obfuscation of both lines of responsibility and lines of communication. The reporting of special education data by age categories can be most easily accomplished if all classes, special and regular, are reported that way. Some delay (perhaps a year or two) should be expected in instituting major reporting changes, both for special education and for all other education, due to the reorganization.

Making the assumptions that 25% of the population is of school age, that the prevalence rates shown in Section IV are accurate, and that Florida's population in 1969 is 6.2 million, leads to an estimate of 35% of the assumed exceptional child population currently being "served". Taking into account the recent and ongoing rapid influx of elderly (i.e., no school age children) persons, and making the assumption that many children in the Socially Maladjusted and Emotionally Disturbed categories will never be in special education classes, the fraction "served" statewide is close to 50%. This is a very favorable "percent served" average, and indicates that Florida, being in a good position to use the results of the prediction model, bears close scrutiny as a possible "bellwether" in model application.

VII. RECOMMENDATIONS

In order to provide for data needs of the Manpower Requirements Projection Model and other data requirements of the Exceptional Children Section, it is recommended that Florida retain and expand its existing data summary type of information system and use the services of the Data Processing Section to process the detailed data. To initiate the expansion of this system, a request for all of the needed data elements (enrollments, waiting lists, new entrants and attritions) by single year of age for each exceptionality could be made on the current "Annual Report - Education for Exceptional Children" by adding a set of simple matrix formats (an example of which is presented in Figure 2), placing them either one each on the reverse side of most of the current pages in the report or all together on a separate page or pages to be added to the report. The former method is recommended because of the inadvisability of adding to the already great bulk of the Annual Report.

In 1968-69, 59 of the 67 county school systems operated classes for the Intellectually Disabled - Educable and 30 county school systems operated classes for the Intellectually Disabled - Trainable. Speech therapy is provided by all 67 county school systems but currently it is reasonable to assume that classes for any other exceptionality are operated in no more than 30 counties. There would be a great deal of data handling and routine arithmetic involved in processing 8 groups of 30 county school systems, one of 59, and one of 67, that could best be handled by automatic data processing. The matrix form suggested in Figure 2 is formatted in such a manner that the data on it can be directly keypunched, and a computer program to process this data and report totals and

County _____
Year _____

SUMMARY OF ALL IDENTIFIED INTELLECTUALLY DISABLED—EDUCABLE

Category / Age	Enrolled*	On Waiting List*	New Entrants**		Attritions***		
			Newly Diagnosed	Intrastate Transfer	Moved	Returned to Regular Education	Other
3							
4							
5							
6							
7							
8							
9							
10							
⋮							
20							
21							
Totals							

* As of February 1.
** To the county's identified population during the previous year, ending February 1.
*** From the county's identified population during the previous year, ending February 1.

FIGURE 2. EXAMPLE OF SIMPLE MATRIX FORM USED TO COLLECT COUNTY DATA ABOUT THE IDENTIFIED HANDICAPPED CHILD POPULATION BY EXCEPTIONALITY

statistics can be written straightforwardly by the Department of Education's Data Processing Section or an outside contractor.

In order to collect such summary data about the state operated and privately operated special education programs, a cooperative agreement must be reached between the Exceptional Children Section and the Florida State School for the Deaf and the Blind and between the Department of Education and the Department of Health, Welfare, and Rehabilitation Services to effect the reporting of the data element totals to the Exceptional Children Section. Such reporting could be done on matrix forms very similar to those suggested for use by the county school systems. Ideally, the enrollment data so reported should not include all students or residents in the schools and institutions but only those actually enrolled in special education programs.

The timing of the data flow in a data summary type of information system is very important. All enrollment, waiting list, and personnel employment data should be reported as of the beginning of the data year; currently, in Florida, the reports are received as of the middle of the school year (containing data as of February 1), but this can coincide with the beginning of the data year within the framework of an information system. The entrants and attrition information reported by the county school systems should contain data for the previous data year—thus, an attrition report sent to the Exceptional Children Section soon after February 1, 1971, would contain the number of children that had attrited from the identified handicapped child population during the year, February 1, 1970 to January 31, 1969.

There are two alternatives to the timing of county school system entrants and attrition reports to the state. The reports can be made once a year (as described in the previous paragraph) or periodically during the year. If the latter schedule is selected and if February 1 is considered the beginning of the data year, the final periodic reports by each county school system should be sent to the state soon after February 1 and should reflect all entrants and attritions, as of February 1, since the previous periodic reports. In any event, the entrants and attritions occuring during the summer months should be recorded and reported.

VIII. RESOURCE REQUIREMENTS—MANPOWER

If an expansion of the current data summary type of information system is to be implemented in Florida, it is estimated that one man-month will be required to design and/or redesign pages of the data collection instrument and obtain approval of the resulting new form(s). In addition, approximately two man-months of a systems analyst/programmer's time will be required to accomplish the required systems design, coordination, and computer programming/debugging for the total expanded data summary system. This latter set of tasks can easily be performed by the staff of the Data Processing Section, but, due to their limited availability, the tasks may have to be contracted for outside of the Department of Education.

The task of coordinating with the county Directors and Coordinators of Special Education (i.e., training county personnel to fill out the additions to the forms, engendering county school system support for the information system, and ensuring completeness and validity of the reported data) should be done by the staff of the Exceptional Children Section, because they are the only state level personnel that are familiar enough with the situations in the county school systems to make accurate judgments about the completeness and validity of the data. This effort is estimated to require 2 man-months of special education staff time. After the big push to get the system initiated, i.e., the first year of any systems implementation, the task of ensuring data reliability will require very little effort (approximately 1 man-month annually) on the part of the Section's staff. The majority of the continuing effort will be directed toward the training of personnel in county school systems.

The Director of the Exceptional Children Section, by virtue of his position and influence, is probably the only person who can arrange for the cooperation of the state sponsored programs and who can approach privately sponsored programs. The amount of time that this will take is dependent upon the attitudes and the organizational structure of all the agencies and organizations involved.

IX. PERSONS INTERVIEWED

The persons interviewed by the ORI (Leasco) representative, Mr. Theodore Jungreis, during the week of 30 September 1969 were:

Dr. Landis M. Stetler	Director, Exceptional Children Section, Bureau of Curriculum and Instruction, Division of Elementary and Secondary Education, State Department of Education
Dr. Sara Conlon	Consultant, Communication Disorders, Exceptional Children Section
Mrs. Wendy Cullar	Consultant, Program Planning and Coordination, Exceptional Children Section
Mr. Walter S. Davis	Principal, Blind Department, Florida State School for the Deaf and the Blind, St. Augustine, Florida
Mr. Ed Scouton	Principal, Deaf Department, Florida State School for the Deaf and the Blind
John McClellan	Director, Data Processing Section, Office of Services

X. CURRENT REPORT FORMATS

- Application for State Exceptional Child Instruction Unit
- Sample pages from Annual Report - Programs for Exceptional Children

ExcCh
Form C

STATE DEPARTMENT OF EDUCATION
TALLAHASSEE, FLORIDA
FLOYD T. CHRISTIAN, Commissioner

County _____

Date _____, 19____

APPLICATION FOR STATE EXCEPTIONAL CHILD INSTRUCTION UNIT

(File in duplicate with the State Department of Education by July 1)

Check one:
- ☐ Employed in county program last year
- ☐ Not employed in county program last year

A. Recommended Personnel:

Mr.
Mrs. _____
Miss (Print full name as it appears on certificate)

Address _____
(Street) (City)

School or Office Assignment _____
(School or Office Name) (City)

Replacement for _____ Repla- _____
(Applicable only for replacements after July 1)

Birth Date _____ Sex _____

Certification: Type _____ Number ___ ...nk _____ Expiration Date _____

Coverage _____ _____

EFFECTIVE DATE OF UNIT _____, 19_____

(REPRODUCED FROM STATE FORM)

B. Type of Class or Service to be Offered by this Unit: (Check only one and encircle appropriate number.) **(See reverse side before designating type of service.)**

_____Intellectually Disabled 1 2 3

_____Intellectually Superior 1

_____Motor 1 2 3 4

_____Speech Correction 1 2 3

_____Hearing 1

_____Vision 1 2

_____Social and Emotional 1

_____Specific Learning Disabilities 1 2

_____Varying Exceptionalities 1 2

_____Special Services 1 2

C. Organizational Plan in which Unit will be Operated: (Check one.) **(See reverse side before designating organizations.)**

_____Full-time Special Class

_____Part-time Special Class

_____Itinerant Service

_____Consultative Service

_____Special Service

D. Proposed Enrollment: (Daily) or (Weekly) Class or Case Load _____

E. Superintendent's Recommendation: _____
(Signature)

THIS DATA MUST BE COMPLETED BEFORE APPROVAL CAN BE GIVEN

(Please do not mark below this line)

- ☐ Approved
- ☐ Approved--Out of Field— { ☐ Attended Institute / ☐ 6 hours verified }
- ☐ Conditionally Approved
- ☐ Not Approved

This Unit approved as indicated for 1969-70, pursuant to the policies and regulations governing units for exceptional children.

_____
State Director, Education for Exceptional Children

D9-15

EXCEPTIONAL CHILD PERSONNEL CLASSIFICATION

Types of Classes and Services (SBER 130-6.35)

Intellectually Disabled

1. School oriented educational program for children with retarded intellectual development.
2. Special training and education program for children with severely retarded intellectual development.
3. Consultative services to teachers of intellectually disabled children or to teachers who have intellectually disabled children in their classes.

Intellectually Superior

1. Part-time or itinerant instruction or consultative services to intellectually superior children.

Motor

1. Classroom instruction for children or youth with motor disabilities, or se[illegible] problems.
2. Instruction for children confined to the hospital or home.
3. Physical Therapy Service.
4. Occupational Therapy Service.

(REPRODUCED FROM STATE FORM)

Speech

1. Itinerant speech and hearing [illegible] speech defects who are enrolled in other classes.
2. Itinerant instruction prima[illegible]ory training, language development, speech training and lip reading for children enrolled in re[illegible]al classes who are deaf or hard of hearing.
3. Part-time or itinerant instru[illegible] in the English language for non-English speaking pupils to enable them to learn in regular classes.

Hearing

1. Full-time or part-time special classroom instruction for children who are deaf or hard of hearing.

Vision

1. Itinerant instruction and/or consultative services for pupils who are legally blind and/or partially sighted.
2. Classroom instruction for pupils who are legally blind or partially sighted.

Social and Emotional

1. Classroom instruction for children with severe social and emotional problems.

Varying Exceptionalities

1. Classroom instruction for children with varying exceptionalities as defined in these regulations.
2. Consultative service for teachers who have exceptional children in their classes.

Special Services

1. Educational, psychological and sociological evaluation of children thought to be exceptional for placement in appropriate instructional programs.
2. Orientation, evaluation and placement of exceptional youth for work-experience activities.

Types of Organizational Plans (SBER 130-6.33)

1. **Full-time special class.** Special class of exceptional children enrolled with the special teacher for a major portion of the school day.
2. **Part-time special class.** Special class for exceptional children enrolled in a regular class who spend half a day or less with the special education teacher.
3. **Itinerant instruction.** Instruction provided by a special teacher in two or more schools per week to children who are enrolled in regular or special classes.
4. **Consultative services.** Consultative services are provided by a specially qualified person to teachers having exceptional children in their classes.
5. **Special services.** Special diagnostic, evaluative, or consultative services for exceptional children.

CT:LMS
1/27/69
CC: 250

ExcCh
S2C-17

ANNUAL REPORT

County _____

EDUCATION FOR EXCEPTIONAL CHILDREN

Year _____

SPECIAL SERVICES --- Educational and Psychological Evaluation

Supplementary and Consultant Services

Personnel	Source of Funds for Unit			Caseload		
	Exc Child Unit	County	Federal	Average Weekly Caseload	Yearly Caseload	Waiting List Feb. 1
TOTALS						

SPECIAL SERVICES --- Job Placement Personnel

Supplementary and Consultant Services

Number of Schools Served	Personnel (last name & first initial)	Source of Funds for Unit				Total Caseload	Number Placed in Work-Study Program Outside School	Estimated Number to Graduate	Waiting List Feb. 1
		Exc Child Unit	Co.	VR	Federal				
TOTALS									

(REPRODUCED FROM STATE FORM)

*If waiting list for individual classes not readily available, give total waiting list only in Total Space.

[illegible]
1/27/69
CC: 500

[illegible]
SEC-1

ANNUAL REPORT

County _____

EDUCATION FOR EXCEPTIONAL CHILDREN

Year _____

INTELLECTUALLY DISABLED---Educable

Full Time Special Education Classes

School			Teacher	Source of Funds for Unit			Class		
Name	Number	Grade Range	(last name & first initial)	Exc Child Unit	County	Federal	ADM Jan.	Age Range	Waiting list Feb. 1
TOTALS		xxxxx						xxxx	
Estimated Number of Students Completing or Graduating from Program, June 1969.									

*If waiting list for individual classes not readily available, give total waiting list only in Total Space.

(REPRODUCED FROM STATE FORM)

CT:DMS
1/27/69
CC: 200

ExcCh
S2C-6

ANNUAL REPORT

County _____

EDUCATION FOR EXCEPTIONAL CHILDREN

Year _____

SOCIALLY MALADJUSTED AND EMOTIONALLY DISTURBED

Part Time Class or Resource Room**

School			Teacher (last name & first initial)	Source of Funds for Unit			Class			
Name	Number	Grade Range		Exc Child Unit	County	Federal	Jan. AWM	Jan. YM	Age Range	Waiting list Feb. 1*
TOTALS		xxxx							xxxxx	

(REPRODUCED FROM STATE FORM)

**Children are enrolled in a regular class and spend 1/2 day or less in special program.
*If waiting list for individual classes not readily available, give total waiting list only in Total Space.

SOCIALLY MALADJUSTED AND EMOTIONALLY DISTURBED

Juvenile Shelters

Name	Teacher (last name & first initial)	Source of Funds for Unit			Caseload		
		Exc Child Unit	County	Federal	MM Jan.	YM	Age Range
TOTALS							xxxxxxx

CI: LMS
1/27/69
CC: 250

ExcCh
SEC-18

ANNUAL REPORT

County _____

EDUCATION FOR EXCEPTIONAL CHILDREN

Year _____

ADMINISTRATIVE AND SUPERVISORY PERSONNEL

Full Time or Part Time Service

Personnel (last name & first initial)	Source of Funds			Area or Areas of Responsibility
	Exc Child Unit	County	Federal	
TOTALS				

(REPRODUCED FROM STATE FORM)

OTHER PERSONNEL

Full Time or Part Time Service

Please list other personnel providing instruction or services for exceptional children, which are not included in the other report forms. Describe briefly their functions and the number of children with whom they work. This may include special music and physical education teachers.

Personnel	Source of Funds for Unit			Caseload		
	Exc Child Unit	County	Federal	Average Weekly Caseload	Yearly Caseload	Waiting list Feb. 1
TOTALS						

TABLE 1
SUMMARY OF DATA DEVELOPMENT STATUS
FLORIDA

DATA ELEMENTS			LOCAL PUBLIC SCHOOL PROGRAMS			STATE OPERATED PROGRAMS			PRIVATE SCHOOL DATA
			CURRENT STATUS	METHOD OF DEVELOPMENT	SOURCE OF DATA	CURRENT STATUS	METHOD OF DEVELOPMENT	SOURCE OF DATA	
NUMBER OF CHILDREN IDENTIFIED AS NEEDING SPECIAL EDUCATION	ENROLLED	AGE	Not available	Add set of matrices to current annual report	County director or coordinator of special education data from local school districts	All data exists at each school and institution, validity of waiting list data must be determined	Request data on forms similar to those used to collect local public school/county data	Administrator of Special Education Program in each school and institution	15 or 67 counties currently collect basic data from private programs; on a voluntary basis, detailed data could be requested to be transmitted to applicable county offices on modifications of county report formats
		HANDICAPPING CONDITION	Available on "Annual Report-Programs for Exceptional Children" as of mid-school year						
		EDUCATION PROGRAM							
	ON WAITING LIST	AGE	Not available except for grant totals by handicapping condition						
		HANDICAPPING CONDITION							
NUMBER OF CHILDREN MOVING INTO AND OUT OF IDENTIFIED HANDICAPPED CHILD POPULATION	NEWLY DIAGNOSED AS NEEDING SPECIAL EDUCATION	AGE	Not available	Include, as separate rows, in set of enrollment/waiting list matrices added to current annual report	County director or coordinator of special education data from local school districts				
		HANDICAPPING CONDITION							
	INTRA-STATE TRANSFERS	AGE							
		HANDICAPPING CONDITION							
	ATTRITION FROM THE IDENTIFIED HANDICAPPED POPULATION	AGE	Except for total graduates of some exceptionalities, not available						
		HANDICAPPING CONDITION							
		REASON							
YEARLY PROJECTIONS OF THE CHILD POPULATION, BY AGE			Unknown, but probably unavailable	Check other state agencies or modify U.S. Census figures	Department of Finance or similar agency				
DATA USED TO SIMULATE SPECIAL EDUCATION	EDUCATION PROGRAM MIX TRENDS		Available as defined by legislation, policy, and planning	Not applicable	Staff of Exceptional Children Section	Exists as defined by legislation, policy, and planning	Not applicable	Administrator of Special Education in each school and institution	Request voluntary information on individual school policy
	TYPES OF PERSONNEL AND PERSONNEL/PUPIL CONTACT RATIOS	TARGET GROUP							
		EDUCATION PROGRAM							
OPTIONAL: NUMBER OF SPECIAL EDUCATION PERSONNEL EMPLOYED, BY TYPE			Available if paraprofessionals are included as "other"	Tabulate from Annual Report	Staff of Exceptional Children Section or Data Processing Section	Not available to Exceptional Children Section	Request information in a letter or a simple matrix form	Administrator for each school and institution	Request voluntary information from each school in letter or on simple matrix form

GEORGIA STATE ANALYSIS REPORT

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The research reported herein was performed pursuant to Contract No. OEC 0-9-08928-0710 with the Bureau of Education for the Handicapped, Office of Education, U.S. Department of Health, Education, and Welfare. Contractors undertaking such projects under Government sponsorship are encouraged to express freely their professional judgment in the conduct of the project. The points of view or opinions stated do not, therefore, necessarily represent official Bureau position or policy.

GEORGIA STATE ANALYSIS REPORT

I. INTRODUCTION

Sponsored by the Bureau of Education for the Handicapped (BEH), Operations Research, Inc. (ORI) has developed a mathematical model that provides the framework for systematic consideration and evaluation of major elements contributing to the determination of special education manpower needs. The model has been designed for application by state special education agencies and, when fully implemented, will assist each state in the systematic prediction of its own special education manpower needs, based upon individual state education characteristics. The model will simulate present and future manpower needs under varying assumptions regarding changes in personnel/pupil contact ratios, the educational program mixes, the child participation rate, or any combination of these variables.

Following development of this Manpower Requirements Projection Model, a visit was made to each of the 50 state special education agencies in order to familiarize the states with the objectives of the program and to conduct a survey of current state information flow procedures. The purpose of the survey was to review and analyze the capability and potential for utilization of this model by the state agencies responsible for the education of handicapped children. The survey included an analysis of:

a. The capability of existing information flow processes to provide the necessary model input data

b. The existing automatic data processing capability to process the model program

c. The special education staff capability and desire to utilize the model.

This report presents the findings of the survey in the State of Georgia and contains recommendations pertaining to the establishment of information flow procedures for model utilization as well as to the improvement of general information availability for special education program management. The data development status is summarized in Table 1 at the end of this report.

II. SUMMARY

The State of Georgia is in an excellent position to develop and implement the proposed Manpower Requirements Projection Model. The information flow from the local school districts to the state, as well as that between state agencies is adequate to support the model. The Program for Exceptional Children, Division of Special Education and Pupil Personnel Services of the Department of Education has conducted extensive statistical analyses of special education in Georgia. These studies appear in a soon to be published report entitled "Program Planning and Budgeting System—Program for Exceptional Children."

Because of the high level of coordination between the Program for Exceptional Children and the Office of Vocational Rehabilitation Services it appears that the latter would like to be included in the proposed effort. Collecting the necessary data to derive the manpower requirements for vocational education personnel presents a minor problem in data compatibility.

The Department of Education has utilized electronic data processing equipment to summarize and analyze the information from the local school districts. The Program for Exceptional Children has several potential sources of EDP equipment which might be utilized, some of which would necessitate contractual arrangements to obtain the necessary service.

III. RESPONSIBILITIES FOR SPECIAL EDUCATION

The responsibility for the programs for exceptional children in Georgia is illustrated in the informal organizational chart shown in Figure 1. Only those organizations having educational or informational service functions for exceptional children have been shown. Under mandatory legislation, the Georgia Program for Exceptional Children has programs for children in the following areas of exceptionality:

- Educable Mentally Retarded
- Trainable Mentally Retarded
- Speech Impaired
- Emotionally Disturbed
- Hearing Impaired
- Multi-Handicapped
- Visually Impaired
- Special Learning Disabilities
- Gifted.

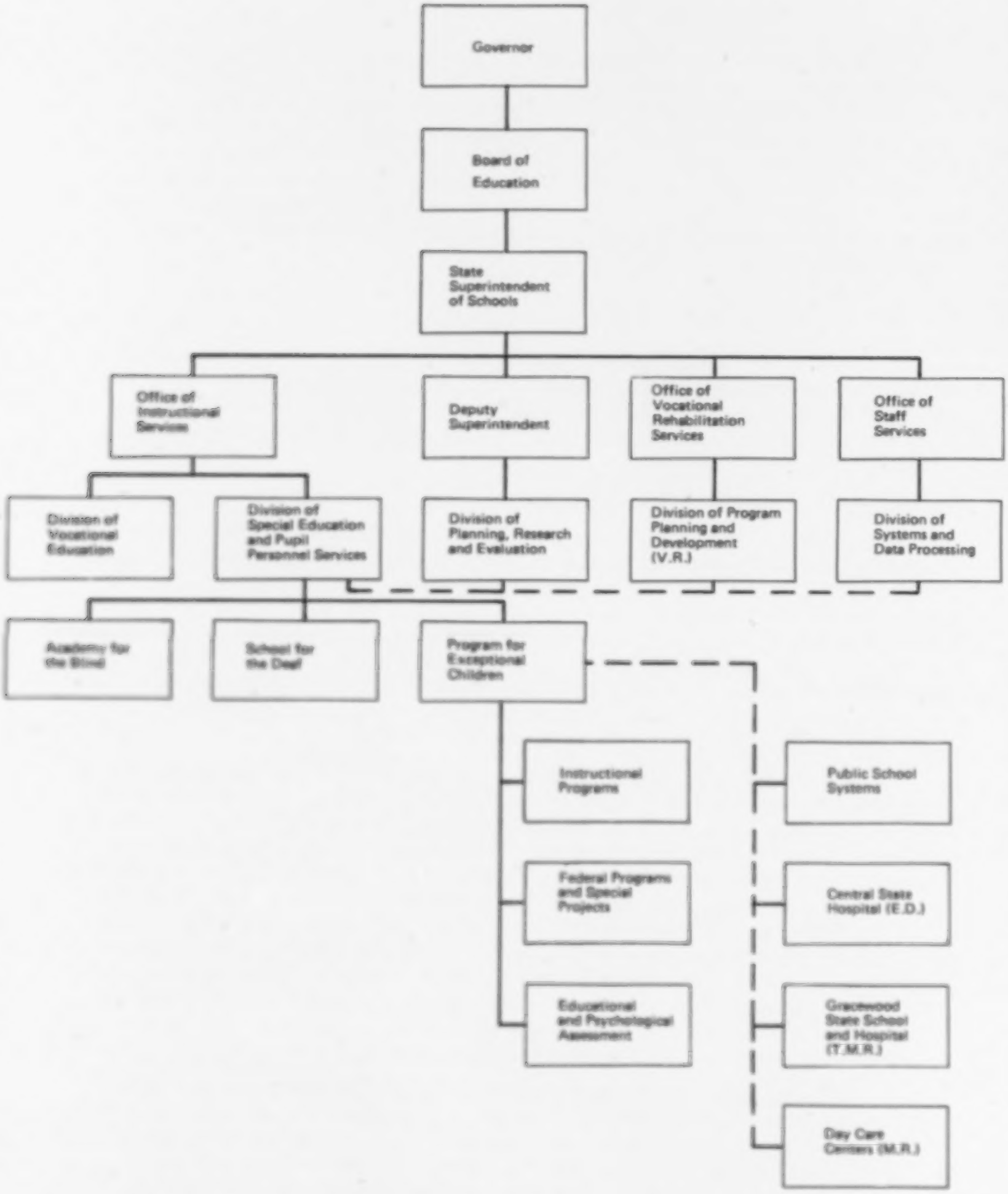

FIGURE 1. ORGANIZATION OF SPECIAL EDUCATION PROGRAMS IN GEORGIA

Basic data collection from public schools is handled by the Division of Planning, Research and Evaluation of the Office of Instructional Services. * The Division of Planning, Research and Evaluation also receives data from the Day Care Centers (mentally retarded), the Georgia Academy for the Blind, Georgia School for the Deaf, the Gracewood State School and Hospital (trainable mentally retarded), and the Central State Hospital (emotionally disturbed) on an informal basis. Such information flow arrangements have been very satisfactory in the past and would be quite sufficient for implementing the proposed Manpower Requirements Projection Model.

IV. DATA ELEMENT EVALUATION

Some specific data elements are necessary to the use of the projection model. The information which these data elements provide may also be very useful to the Program for Exceptional Children for other operational analyses. These data elements and their potential sources are discussed in the following paragraphs.

Number of Children Identified as Needing Special Education

Enrolled. In June of every year, the superintendent of each school system in Georgia files a report with the Program for Exceptional Children on all pupils taught in State-allotted units for exceptional children. The name of the pupil, his age, and diagnosis is contained on these "Annual Enrollment Reports." (See Figure 2.) The only data item that is not presently contained on the Annual Report is the type of class in which the pupil is enrolled, e.g., full-time, resource room, itinerant, etc. This data could easily be obtained by adding an extra line to the present form and supplying a code for type of class on the reverse side of the form. (See "Recommendations" section.)

Enrollment data pertaining to the special education programs of the four institutions in Georgia (i.e., Georgia Academy for the Blind, Gracewood State School & Hospital, Central State Hospital, School for the Deaf) are not received regularly by the Program for Exceptional Children or the Division of Planning, Research, and Evaluation. This data has been readily available to either Division upon request, however, and the Division of Planning, Research and Evaluation could implement a formal procedure for collecting enrollment data on a regular basis for use by the Manpower Requirements Projection Model. The same would be true for the Day Care Centers for the mentally retarded. The collection of Day Care Center information would have to be handled by the Division of Planning, Research and Evaluation and the Director of Day Care Centers of the Georgia Department of Health. (See "Recommendations" section.)

Waiting List. This information is not currently available on a regular basis to the Program for Exceptional Children. Waiting lists for local school districts were included, however, in a one time data collection effort known as "System and/or Multi-System Plan for Special Education" (section A). In this plan, each local school system was asked to provide the state with an

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* Specific information relating to exceptional children is collected by the Program for Exceptional Children.

FORM - EC - AR
REVISED: May, 1966

STATE DEPARTMENT OF EDUCATION
State Office Building
Atlanta, Georgia 30334

(8) Page _____ of _____

(9) Date _____

OFFICE OF INSTRUCTIONAL SERVICES
FOR EXCEPTIONAL CHILDREN

JACK P. NIX
STATE SUPERINTENDENT OF SCHOOLS

UNIT FOR CRIPPLED CHILDREN

ANNUAL REPORT

(TYPE 4)

CLASS PROFILE

C. A. Range _____ to _____ mos. (1)

M. A. Range _____ to _____ mos (2)

I. Q. _____ to _____ (3)

No. of Girls _____ Boys _____ (4)

Elem. ( ) Sec. ( ) (5)

Name of School _____ Code _____ (6)

Name of System _____ Code _____ (7)

(10) Coordinator _____

(11) Principal _____

(12) Teacher _____

(13) _____
Certification Type and Number

_____
Type of Class

DIRECTIONS: Complete in triplicate; retain one copy for your files, send two copies to your coordinator.

NAME OF PUPIL (Last Name and First Initial)	SEX (See Code)	C.A. in months as of Sept. 1	Date of Enrollment in Unit	Date of Withdrawal	Reason for Withdrawal (See Code)	Placement Following Withdrawal (See Code)	Months in Prog.	Placement Before (See Code)	Diagnosis (See Code)	Other Exceptionality	I. Q. SCORE		
											Score	Test Used (See Code)	Date Admin.
(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(24)	(25)	(26)	(27)	(28)

(REPRODUCED FROM STATE FORM)

246 D10-5

FIGURE 2. ANNUAL ENROLLMENT REPORT

unduplicated count of the number of exceptional children not being served as of December, 1968 (Figure 3). For these school systems, the figures provided to the state were based on current waiting lists, children referred for diagnosis, i.e., referral lists, national prevalence rates, or some combination of these other items. Given that the local school systems have, on occasion, been asked to provide waiting list data to the state, it should be fairly easy to obtain their support and cooperation in this area in the future. (See Section VII, "Recommendations.")

Waiting list data from the institutions with special education programs have not been regularly available to the Program for Exceptional Children. Such data was requested to satisfy the data demands of the current study. The Division of Planning, Research and Evaluation could establish format procedures for regular reporting of waiting list data from the institutions. (See Section VII, "Recommendations.")

Number of Children Moving Into and Out of the Handicapped Child Population

In order to obtain the number of children who have been newly diagnosed as needing special education, new reporting directives would have to be developed and issued by the Program for Exceptional Children and the Division of Planning, Research and Evaluation. (See Section VII, "Recommendations.")

In addition to children newly diagnosed as handicapped each year by diagnostic clinics or schools, it is possible that school programs will acquire children who have been diagnosed or identified as handicapped previously in other school systems or other parts of the state. Rather than reporting these children again as newly diagnosed (which could distort the incidence picture in the state), these intrastate transfers should be reported separately. Because no mechanism exists to monitor these transfers into special education programs, one would have to be developed by the Program for Exceptional Children. This could be accomplished by modifying Form IEC-AR (Figure 4) to enable respondents to indicate which children reporting that year had transferred into their program from another special education program in the state. These intrastate transfers could then be tabulated fairly simply from these enrollment forms when received.

State residential schools and community centers could also be asked to indicate intrastate transfers into their programs, as part of the enrollment data that the Division of Planning Research and Evaluation would be requesting each year for inclusion in the model.

Data on the number of children who withdrew from the identified handicapped school population is available on the form identified above (item 19 on Figure 4). The Division would also have to query those school districts that maintain current waiting lists in order to learn of those children that dropped off the lists because they left the state, died, or became too old to be classed as children.

Section II. System Needs
Due December 15, 1968

A. Census

1. Describe the procedure used to effect a census of all handicapped and gifted children in your school system.

2. Enter below, by area of exceptionality, an unduplicated count of your census findings of the numbers of exceptional children not now being served in your system.

AGE GROUP	TRAINABLE MENTALLY RETARDED	EDUCABLE MENTALLY RETARDED	HARD-OF-HEARING	DEAF	SPEECH IMPAIRED	VISUALLY HANDICAPPED	EMOTIONALLY DISTURBED	MULTI-HANDICAPPED	HOSPITAL/ HOMEBOUND	GIFTED	OTHER	TOTAL
0 - 3												
4 - 6												
7 - 9												
10 - 12												
13 - 15												
16 - 18												
19 - 21												
TOTAL												

(REPRODUCED FROM STATE FORM)

FIGURE 3. SECTION A OF "SYSTEM AND/OR MULTI-SYSTEM PLAN FOR SPECIAL EDUCATION

"34 – IEC – AR
REVISED: May, 1966

OFFICE OF INSTRUCTIONAL SERVICES
FOR EXCEPTIONAL CHILDREN

STATE DEPARTMENT OF EDUCATION
State Office Building
Atlanta, Georgia 30334

(8) Page _____ of _____

(9) Date _____

JACK P. NIX
STATE SUPERINTENDENT OF SCHOOLS

UNITS FOR CHILDREN WHO ARE SPEECH DEFECTIVE

ANNUAL REPORT

(TYPE 6)

CLASS PROFILE

C. A. Range _____ to _____ mos. (1)

M. A. Range _____ to _____ mos. (2)

I. Q. _____ to _____ (3)

No. of Girls _____ Boys _____ (4)

(10) Coordinator _____

(11) Principal _____

(12) Teacher _____

(13) _____
Certification Type and Number

[redacted]

Name of School _____ Code _____ (6)

Name of System _____ Code _____ (7)

DIRECTIONS: Complete in triplicate; retain one copy for your files, send two copies to your coordinator.

NAME OF PUPIL (Last Name and First Initial)	SEX (See Code)	C.A. in months as of Sept. 1	Date of Enrollment in Unit	Date of Withdrawal	Reason for Withdrawal (See Code)	Placement Following Withdrawal (See Code)	Mos. in Prog.	Grade Placement (See Code)	Diagnosis (See Code)	Degree of Severity (See Code)	Other Exceptionality	Estimated Time spent per week in minutes	Intra-State Transfer? (See Code)
(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(23)	(24)	(29)	(25)	(30)	

(REPRODUCED FROM STATE FORM)

FIGURE 4. "ANNUAL ENROLLMENT REPORT"—TYPE 6

State residential schools and community centers could also be asked to indicate attritions from their special education programs using similar forms.

General Population Projections

The projected number of children in the general population, by single year of age, for each year for which special education manpower projections are to be made, presents little problem in data collection since Title VI project applications require this information, at least for the coming fiscal year. Projections required by the model are also available for future years according to elementary, intermediate and secondary age groupings. For use by the model, these projections must be broken down according to single year of age.

Data Used to Simulate Special Education

Trends in the proportionate number of children served in each educational program, by handicapping condition and single year of age are available for public school special education programs, special education programs in institutions, and community center programs.

The personnel/pupil contact ratios for the types of public school personnel, in direct contact with the children in each target group in special education programs, is another data item that is readily available from the Division of Special Education. These ratios are contained in a document entitled, "Program for Exceptional Children—Rules and Procedures," published by the Georgia Department of Education.

For state residential schools, the recommended personnel/pupil contact ratios are determined by the superintendents of the individual institutions. In most instances, the curriculum is determined, teachers are hired, and the number of children in each class is determined on an individual basis for each teacher. The actual ratios, therefore, may be far from the recommended ratios. This may also be the case in each of the community centers serving the mentally retarded in the state.

Employment by Personnel Types

This data is available from the "Annual Enrollment Reports." Data on all full-time personnel assigned to exceptional child programs was also obtained through the "System and/or Multi-System Plan for Special Education"—section G (Figure 5). It would not be necessary to re-issue section G for the proposed model, unless the state wanted to determine the future needs of all special education personnel, not only teachers. Recommended personnel/pupil contact ratios would have to be developed for these personnel categories.

V. PROCESSING POTENTIAL

Hardware

The hardware available to the Division of Special Education and Pupil Personnel Services is adequate for information system processing and model application. The Education Department's Division of Systems and Data Processing

FORM III

G. PERSONNEL. Full-time personnel are assigned to exceptional child programs 40 or more hours per week; part-time, less than 40 hours per week.

	July 1, 1968 to June 30, 1969								
	FULL-TIME PERSONNEL			PART-TIME PERSONNEL					
	Regular School Year (only)	Summer Program (only)	12 Month	Regular School Year (only)	Average % of Time	Summer Program (only)	% of Time	12 Month	% of Time
TEACHERS									
Trainable M.R.									
Educable M.R.									
Hard-of-Hearing									
Deaf									
Speech Therapy									
Visually Handicapped									
Emotionally Dis.									
Multi-Handicapped									
Hospital/Home									
Gifted									
Other									
SUPERVISORY & ADMINISTRATIVE									
Director/Coordinator									
Consultants (List by type):									
1.									
2.									
3.									
4.									
5.									
6.									
OTHER SCHOOL PROGRAM PERSONNEL									
Psychologist									
Visiting Teacher									
Work-Study Counselor (V.R.)									
Physician									
Nurse									
Curriculum Director									
Guidance Counselor									
Other Professional									
Other Non-Professional									
GRAND TOTAL									

(REPRODUCED FROM STATE FORM)

FIGURE 5. SECTION 6 OF "SYSTEM OR MULTI-SYSTEM PLAN FOR SPECIAL EDUCATION"

has not frequently processed special education data because it has not been requested to do so. The Program for Exceptional Children has, on occasion, rented computer time through a contract with the Georgia State University Computer Center.

Personnel

The programming and keypunching resources of the Division of Systems and Data Processing are adequate to support the Manpower Requirements Projection Model. Similarly, the Division of Planning, Research and Evaluation has a staff which is well qualified to use the model and interpret its results.

Acceptance of Model Concept

The Program for Exceptional Children, the Division of Planning, Research and Evaluation, as well as the Division of Vocational Education, were very interested in the proposed model and expressed a desire to see the model implemented in Georgia. The Division of Vocational Education felt that there would be no problem in coordinating its activities with the other two agencies in developing and maintaining the information flow serving as the input to the model.

VI. ADDITIONAL FACTORS

The Director of Special Education is eager to establish the information flow and data processing capability necessary to implement the model. The Program for Exceptional Children has a history of good relations with the local public school districts in the area of data collection and establishing the information flow required by the model presents few problems. One real problem with implementing the model, however, concerns funding. At the present time, there is a one year time lag between the time the "Annual Enrollment Reports" are received by the state and the time the Program for Exceptional Children receives the computer output. It would appear, then, that adequate model implementation would require contracted computer support. Additional funding would be needed by the Program for Exceptional Children to enter into such contractual arrangements.

Another factor which directly influences the development and implementation of the model concerns the mandatory legislation passed by the 1968 Georgia General Assembly requiring planning and programming for special education services in Georgia's schools. Mandatory legislation in some states does not appear to have encouraged the diagnostic program of those states. That is, the inability of the local and/or state government to provide adequate funding for special education programs has discouraged local school administrators from referring children suspected of having handicapped conditions for diagnosis. In these cases, model development is seriously hampered because the newly diagnosed rate and the attrition rate is understated due to incomplete data. It does not seem, however, that mandatory legislation presents the same problem in Georgia. House Bill 453 mandates full services by the 1975-76

school year. This gives local and state special education personnel the necessary time to develop the capability for dealing with the massive task of providing all exceptional children with special education services. The local agencies in Georgia may not have nearly the same reluctance to diagnose additional children suspected of having handicapped conditions. Indeed, the diagnostic program within the state may even be intensified by the mandatory legislation. The probability of obtaining fairly accurate rates of newly diagnosed children and children withdrawing from the identified handicapped school population, then, is good.

V.. RECOMMENDATIONS

As a result of the interviews with those individuals responsible for special education programs in Georgia, several actions necessary for implementing the Manpower Requirements Projection Model can be recommended. First, the two state agencies accountable for special education program data collection must close the data gaps between current data availability and the amount of data required by the model. In order to close the data gap, these agencies must develop a form to capture information on those children that have been newly diagnosed as needing special education but are not currently being served by a special education program. All school system superintendents should be required to complete this form and supply the data by the fall of each year. Because of the high level of effort imposed on the superintendents by this task, considerable emphasis must be placed on the importance of collecting this data by the Program for Exceptional Children.[1/]

The local system in Georgia is recommended as the source of this data because it is there that a child is processed and deemed eligible for special education. Cooperative directives could be issued between the Department of Education and each of the other agencies involved in diagnosing the children to effect the reporting of these newly diagnosed children to the applicable local system by child name, age, address, parent name, and handicapping condition of those children who are newly certified as needing special education.

If the latter query method is chosen, a simple matrix form, one by handicap and age, could be used by the local system in a hash-mark fashion to record the children as they are reported to the system newly diagnosed. (See Figure 6 for an example of such a form.) This form could then be forwarded to the Program for Exceptional Children at the end of the year. Such data need not be reported to the state by child name unless the enrollment and waiting list data are also reported by child name.

1/ During the time that is required to develop reliable data on the unserved child population, the Program for Exceptional Children may choose to continue to use estimates of this population from past experience and published CEC articles. Using such prevalence rates is only an interim method of estimating the total handicapped child population. These rates are a starting point for such an estimation, but to be useful in the long run (not only for applying the model but for other state planning purposes), they should be validated with actual data. Such validation can be done by collecting appropriate data and making successive approximations. Later documents pertaining to this project will contain more detailed descriptions of alternative methods of validating these rates.

Newly Diagnosed			
Handicapping Condition	Trainable Mentally Retarded		Deaf
Age / Source	Mental Retardation Center	Institution	Institu
2	IIII	IIIIII I	
3			
4			
5			
6		IIIII IIIII	
7			
8			
9			

FIGURE 6. EXAMPLE OF MATRIX FORM TO COLLECT LOCAL DISTRICT DATA ABOUT NEW ENTRANTS TO HANDICAPPED CHILD POPULATION AND EXAMPLE OF HASH-MARK ENTRIES

The foregoing methods for collecting data on entrants to the handicapped child population places the reporting burden on the local school system. While this procedure places considerable burden on the local superintendents, doing it any other way greatly increases the possibility of double counting.

It is also recommended that the Program for Exceptional Children modify Form IEC-AR "Annual Enrollment Report" to enable teachers to indicate the children that had transferred into their program from another special education program in the state during the year. This listing must show the age and specific handicapping condition of such transferred children.

It is also recommended that the Program for Exceptional Children request intrastate pupil transfer data and attrition data from the institutions and community centers. At the same time, the Program for Exceptional Children should query those school systems that maintain current waiting lists to learn of children that left the lists because of leaving the state, death, or becoming too old to be eligible for public school special education.

Because of the desire of the Office of Vocational Rehabilitation Services to be included in the proposed model effort, it is recommended that this Office, working cooperatively with the Program for Exceptional Children, modify its "Monthly Progress Report" to include all of the data items discussed in the preceding pages of this report. This will involve obtaining data on those children enrolled, referred and terminated from the program, according to their single year of age.[2] A recommended personnel/pupil contact ratio will also have to be developed.

VIII. RESOURCE REQUIREMENTS—MANPOWER

It is estimated that approximately 2 man-months of effort by the staff of the Program for Exceptional Children would be necessary to develop the procedures for implementing the model, including coordinating information-collecting activities with other state and local agencies during the first year. Additionally, 3 man-months of systems analysis, 6 man-weeks of computer programming, and 2 man-weeks of forms design work will be required to implement the recommended special education information system. In subsequent years, about 1 man-month of combined effort annually will be required to maintain the system.

---

[2] It should be noted that "newly diagnosed" is not a meaningful data item for vocational rehabilitation. Once a child is referred for vocational rehabilitation, he is placed if the program has the facilities to service him. Diagnosis is not necessary. The number of newly referred children is a more relevant variable for vocational rehabilitation.

IX. PERSONS INTERVIEWED

The people interviewed by the ORI (Leasco) representative, Mr. Jeffrey Koshel, during the week of 6 October 1969 were:

Herbert D. Nash	Associate Director, Division of Special Education and Pupil Personnel Services
Margaret O. Bynum	Consultant, Area of Gifted
Ruth H. Carpenter	Coordinator, Instructional Programs
Kenneth M. Eikert	Consultant, Educational and Psychological Assessment
Dale A. Fehl	Coordinator, Federal Programs and Special Projects
Ronald Luckie	Associate Director for Planning, Division of Planning, Research and Evaluation
Anthony A. Molinaro	Consultant, Title I, ESEA
G. Harold Smith	Consultant, Secondary EMR Program
Elizabeth A. Todd	Consultant, Mental Retardation
Leonard Young	Coordinator of Services for the Mentally Retarded, Office of Vocational Rehabilitation Services

TABLE 1

[illegible]

[illegible]			PUBLIC SCHOOLS			SPECIAL SCHOOLS			INSTITUTIONS			PRIVATE DAY CARE CENTER DATA
[illegible]			CURRENT STATUS	DEFINED OF DEVELOPMENT	SOURCE OF DATA	CURRENT STATUS	DEFINED OF DEVELOPMENT	SOURCE OF DATA	CURRENT STATUS	DEFINED OF DEVELOPMENT	SOURCE OF DATA	
[illegible]	[illegible]	[illegible]	Currently available	Not applicable	Superintendent of local school districts	Currently available upon request	Formal procedures exist to facilitate receipt of data	Superintendent of Government Dr., Hospital and Center Dr., Hospital	Currently available upon request	Formal procedures established for regular receipt of data	Georgia Academy for the Blind and School for the Deaf	Currently available through State Director of Day Care Centers
		[illegible]	Not available	Maintenance of "Special Education Report"								
	[illegible]	[illegible]	Not available	Some data currently similar to Figure 1	Superintendent of local school districts	Available upon request	Some formal procedures required	Superintendent of Government Dr., Hospital and Center Dr., Hospital	Currently available upon request	Formal procedures established for regular receipt of data	Georgia Academy for the Blind and School for the Deaf	Currently available through State Director of Day Care Centers
[illegible]	[illegible]	[illegible]	Not available	Some data currently similar to Figure 1	Superintendent of local school districts	Available upon request	Some formal procedures required	Superintendent of Government Dr., Hospital and Center Dr., Hospital	Currently available upon request	Formal procedures established for regular receipt of data	Georgia Academy for the Blind and School for the Deaf	Currently available through State Director of Day Care Centers
	[illegible]	[illegible]	Not available	Modification of "Special Education Report"	Superintendent of local school districts	Available upon request	Some formal procedures required	Superintendent of Government Dr., Hospital and Center Dr., Hospital	Currently available upon request	Formal procedures established for regular receipt of data	Georgia Academy for the Blind and School for the Deaf	Currently available through State Director of Day Care Centers
	[illegible]	[illegible]	Currently available	Not applicable	Superintendent of local school districts	Available upon request	Some formal procedures required	Superintendent of Government Dr., Hospital and Center Dr., Hospital	Currently available upon request	Formal procedures established for regular receipt of data	Georgia Academy for the Blind and School for the Deaf	Currently available through State Director of Day Care Centers
[illegible]			Available for age groups	Groups must be broken down	Division of Special Education							
[illegible]	[illegible]		Available	Not applicable	Division of Special Education							
[illegible]	[illegible]	[illegible]	Currently available	Not applicable	Division of Special Education	Not available	Must be requested from school	Superintendent of Government Dr., Hospital and Center Dr., Hospital	Not available	Must be requested from institutions	Georgia Academy for the Blind and School for the Deaf	Not available
[illegible]			Currently available	Not applicable	Division of Special Education	Available upon request	Some formal procedures required	Superintendent of Government Dr., Hospital and Center Dr., Hospital	Available upon request	Some formal procedure required	Georgia Academy for the Blind and School for the Deaf	Available

HAWAII STATE ANALYSIS REPORT

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The research reported herein was performed pursuant to Contract No. OEC 9-9-080218-0710 with the Bureau of Education for the Handicapped, Office of Education, U.S. Department of Health, Education, and Welfare. Contractors undertaking such projects under Government sponsorship are encouraged to express freely their professional judgment in the conduct of the project. The points of view or opinions stated do not, therefore, necessarily represent official Bureau position or policy.

HAWAII STATE ANALYSIS REPORT

I. INTRODUCTION

Sponsored by the Bureau of Education for the Handicapped (BEH), Operations Research, Inc. (ORI) has developed a mathematical model that provides the framework for systematic consideration and evaluation of major elements contributing to the determination of special education manpower needs. The model has been designed for application by state education agencies and, when fully implemented, will assist each state in the systematic prediction of its own special education manpower needs, based upon individual state educational characteristics. The model will simulate present and future manpower needs under varying assumptions regarding changes in personnel/pupil contact ratios, the educational program mixes, the child participation rate, or any combination of these variables.

Following development of the model, a visit was made to each of the 50 state special education agencies in order to familiarize the states with the objectives of the program and to conduct a survey of current state information flow procedures. The purpose of the survey was to review and analyze the capability and potential for utilization of this model by the state agencies responsible for the education of handicapped children. The survey included an analysis of:

a. The capability of existing information flow processes to provide the necessary model input data

b. The existing automatic data processing capability to process the model program

c. The special education staff capability and desire to utilize the model.

This report presents the findings of the survey in the State of Hawaii, and contains recommendations pertaining to the establishment of information flow procedures for model utilization as well as to the improvement of general information availability for special education program management. The data development status is summarized in Table 2 at the end of this report.

II. SUMMARY

Complete special education information is maintained at each of the seven local school districts by the Curriculum Specialist. The Hawaii Special Education Branch is currently receiving data from these local districts, but the set of data elements collected is incomplete for use as input to the Manpower Requirements Projection Model. Using the good rapport and the existing data flow between the local Curriculum Specialists and the Special Education Branch upon which to build, Hawaii should have little problem developing a more complete, and perhaps automated, information system relating to the handicapped child population. Such an information system has a high probability of being developed and implemented in a relatively short period of time. The proposed information system should result in successive improvements in the completeness and the accuracy of the data elements over time, with such validity being achieved within a few years at the most. Later documents pertaining to this project contain more information about methods which may be used to estimate some of the data elements until a good information flow is developed and validated.

The data processing hardware and personnel within the state agency entitled State-Wide Information System (SWIS) are available for use by the Special Education Branch and have the capability of handling both the model input data processing (if required) and the program model itself.

III. RESPONSIBILITIES

In the State of Hawaii, the Department of Education, through the Special Education Branch in the Office of Instructional Services, is responsible for the conduct of special education in all seven school districts and in six special and hospital schools, some of which are actually operated by the Department of Health but whose special education programs are operated by the local school district in which the hospital schools are located. Currently, the Special Education Branch is headed by Dr. Hatsuko F. Kawahara and contains a position of Administrator of Special Education (Mrs. Marjorie Leu) which is funded by Title III. A proposed reorganization has been submitted to the legislature, which if approved would change the Special Education Branch into the Division of Special Education and would split the responsibilities of the Branch into two sections, one in charge of special projects (headed by Dr. Kawahara) and one in charge of special education (headed by Mrs. Leu).

The former section includes an educational psychologist, working with the diagnostic program, and two program specialists, working with the instructional materials center and federal programs (mainly Title VI). One of the current

tasks of this section is the implementation of a state-wide diagnostic system within the current education complex. The Special Education Section includes a school social worker, and three program specialists (two currently, one pending legislative approval) who approve and oversee the conduct of local district special education by working with the coordinator of special education in each district. This Section also works closely with the administrator of Special Schools and Projects.

At the local school district level, the Curriculum Specialist, Special Education, is in charge of counseling and is responsible for a variety of tasks involving special education services:

- Assists the District Superintendent with budget preparation
- Advises the District Superintendent on the placement of programs
- Advises classroom teachers on the operation of programs
- Ensures that all enrollees are diagnosed and recommended for special education
- Maintains and reports the number of children enrolled in programs
- Maintains a list of children awaiting entrance into programs
- Coordinates services of district special services staff.

In the third task, the word "advises" should be emphasized because the special education teacher's first responsibility is to his school principal.

The position of Administrator of Special Schools and Projects has been assigned to the Honolulu School District Curriculum Specialist, Special Education, because all of the special schools are located in his district. This position carries with it responsibilities for the provision of special education in six state schools and hospitals; these are:

- The placement and operation of the programs, classes and schools
- The maintenance of enrollment and waiting list information, the latter containing only children who have been evaluated
- The employment of special education personnel and the maintenance of data on employment by occupation type and educational achievement level.

All other public special education in Hawaii is operated at the state level by the Department of Health in Waimano Training School and Hospital for the Mentally Retarded and in some preschool classes for the mentally retarded trainable and by the Division of Vocational Rehabilitation, Department of Social Services, in preschool classes for the blind. The organization chart depicting the foregoing description is presented in Figure 1.

* Recommended Positions, to be approved by the Legislature for 1970-71 Fiscal Year

** Currently Director of Special Education

*** Position Currently Funded by Title III

FIGURE 1. HAWAII ORGANIZATION CHART RELATING TO SPECIAL EDUCATION SERVICES

Very few nonpublic special education programs exist in Hawaii. These programs are free of any control by the state and local governments but this analyst found their administrators cooperative when asked for information.

Currently, all special education information that is returned directly to the Department of Education goes to the Statistics Branch in Office of Business Services. This branch is responsible for getting the data processed by the Statewide Information System (S.W.I.S.), an independent state agency that provides systems analysis, computer programming, and data processing services for all other government agencies who request them.

IV. DATA ELEMENT EVALUATION

All seven local school districts in Hawaii provide at least some special education services. All data for locally sponsored special education that are currently collected originate from the Curriculum Specialist in each school district office. There is a possibility, however, that these districts may be reorganized into about 30 educational complexes, some of which may not operate special education programs. If the school district office, with its Curriculum Specialist, is maintained as a liaison between these educational complexes and the Special Education Branch, the reorganization will not adversely affect the data flows discussed and proposed in this report. In the following paragraphs, the data elements needed by the Manpower Requirements Projection Model are discussed in terms of their availability and development potential.

Identified Handicapped Population

The number of children enrolled in special education, the first component of the most important data element (the number of children identified as needing special education), is reported to the state on different forms. At the beginning of each school year, the Curriculum Specialists report the number of classes and students by specific handicap category for each local and special school directly to the Special Education Branch on a form entitled "Statistical Report for Special Education Programs" (see page DII-28). By referring to the school name, these enrollments can be classified into education levels. Additionally, these Curriculum Specialists report quarterly enrollment and waiting list data, by school, class, specific handicap category, and education level, to the Special Education Branch on a form entitled "Quarterly Report on Special Education Classes and Schools" (see page DII-27). This branch has suggested a modification of the latter form for collecting the data from each school principal instead of from the district Curriculum Specialist (see page DII-26).

At three times during the school year, each school principal reports special education enrollment along with regular class enrollment on Form RD-201, "Report on Pupil Membership . . ." (see pages DII-21 thru 23), directly to the Department of Education. The forms are then processed under the guidance of the Statistics Branch in the Office of Business Services. In September, the principals report this enrollment by broad handicap category and grade on Part A of the form. In December, this enrollment is requested by broad handicap category and single year of age on Part B of the form. Lastly, Part C is returned in June containing the special education enrollment by the same broad handicap categories and age. The

Special Education Branch has requested that modifications be made to Parts B and C (see pages D11-24, 25) to make the handicap categories more specific.

If the Special Education Branch is to help design and maintain an information gathering and processing system, all of the special education data should be eliminated from the principal's data forms, RS-201-A, B, and C, and should be requested in complete form from the Curriculum Specialists. The format of these data requests is dependent upon the type of information system that will best meet the needs of Hawaii's Special Education Branch. Currently, the branch uses a data summary type of system, in which the data elements are reported in summarized form, by categories, and are used in summary form. However, Dr. Kawahara, administrator of the Special Projects Section in the Special Education Branch, indicated that the branch wanted to compile and maintain a comprehensive registry of handicapped children. This would require an automated modified pupil accounting system to handle the data records, one for each handicapped child.

For either system, the best source of data is the Curriculum Specialist because his office is responsible for maintaining all of the special education and handicapped children data for his district. Thus, whether the data is requested in summary form on matrix reports similar in format to Form RS-201-B or is requested by child name on new report formats, its reliability and validity are likely to be good. If the data is to be kept by child name at the state level and if it is not important to retain the teacher name or code in each child's data record, the reporting of enrollments by total class or district every fall could be replaced for the years following the implementation of a data system, by having the Curriculum Specialist of each school district update an automated list of the previous year's enrollments and waiting list. If the teacher identification is needed, each child's record could be updated. This type of system in which the data is recycled would eliminate the need for fall enrollment forms, and would reduce the data reporting task of the local districts.

Enrollment information from the remaining state school, Waimano, operated by the Department of Health, and the preschool classes, operated by the Department of Social Services, does not currently flow to the Special Education Branch. If cooperative arrangements could be made between the Branch and these Departments as well as other private schools, the enrollment data could then be requested or the executive officer in charge of each school or group of classes on forms similar to those used by local districts. These forms could then be transmitted either directly to the Special Education Branch or to the applicable school districts for inclusion in the data reported by the Curriculum Specialist. The latter data flow is preferable because it enables the Curriculum Specialist to verify the information and to record any of the data that he might need for local planning purposes.

Currently, the number of children on special education waiting lists, the second component of the identified handicapped child population, is kept by child name and associated characteristics at the local school district level by the Curriculum Specialists but are reported to the state, by specific handicap category and education level only, on the "Quarterly Report...." form. Here

too, the type of special education information system will dictate the format of any request for waiting list data. A modification or an addition to the matrix format of the "Quarterly Report..." could be made for the beginning of year report if the data is needed in summarized form. If the enrollment data are requested by child name, the waiting list data should also be requested by child name on a form similar to the one used by the districts to report enrollments. If both the enrollment and the waiting list data are reported by child name and a combined automated list is made and sent back to the local school districts, the data gathering task will become easier because the list need just be updated by the Curriculum Specialists. The data will be more accurate in this recycling process because of increased local involvement in the use of the reported data.

As was discussed above for enrollment information, if a cooperative arrangement can be made, the waiting list data for Waimano School and the preschool classes could be requested of the executive officer of each school or group of classes on forms similar to those used by the local school districts.

Unidentified Handicapped Population

Since no complete and systematic diagnostic referral system now exists at the state or local level, data on the unidentified handicapped child population will probably have to be estimated using the published national prevalence rates, which are what Hawaii uses in the absence of their own estimated rates. The national rates would be used for these handicap categories:

- Mentally Retarded Educable
- Mentally Retarded Trainable
- Emotionally Handicapped
- Blind
- Partially Sighted
- Deaf
- Hard of Hearing
- Orthopedically Handicapped
- Specific Learning Disabilities
- Speech Handicapped.

Using prevalence rates is an interim method of estimating the total handicapped child population. These rates are a starting point for such an estimation, but to be useful in the long run, not only for applying the model but for other state planning purposes, they should be validated with actual data. Such validation can be done by collecting appropriate data and making successive approximations. Later documents pertaining to this project will contain more detailed descriptions of alternative methods of validating these rates.

Entrants and Attritions

Information about the number of children moving into and out of the identified handicapped child population is currently maintained at the local district by the Curriculum Specialist but is not reported to the Special Education Branch.

Responsibility for diagnosing children is not centralized in Hawaii and the diagnostic results are reported only to the source of the original referral. Due to this lack of a structured diagnostic reporting system (i.e., all or most of the diagnoses reported to a central source, e.g., the local school district), the number of children newly diagnosed as needing special education cannot be completely and accurately collected in Hawaii. The local district is recommended as the central source because it is there that a child is processed to deem eligibility for special education. Thus, cooperative arrangements should be made between the Department of Education and all other state agencies (e.g., Department of Health and Department of Social Services) and private physicians to affect the reporting of these newly diagnosed children to the applicable local district by child name, age, address, parent name, and handicapping condition. The Curriculum Specialist in each local district could then be queried for individual children's names and records or for totals by age and handicapping condition of those children who are newly certified as needing special education.

Such data on new entrants and intra-state transfers (new entrants to a local district who have been previously diagnosed by another district within the state) can be collected either at year end or periodically during the year, depending upon the type of information system (child record or numeric totals), the level of automation, and the degree of currentness desired for the system. These data need not be reported to the state by child name unless the enrollment and waiting list data are also reported by child name. If the data are being reported by name and an automated list of the identified handicapped children is being sent to the local districts at the beginning of the year, it would be preferable to have that list updated, with new entrants added and attritions (also discussed below) noted, and a copy forwarded to the state at the end of the year.

Information about attritions from the total identified handicapped population can be developed in a similar manner to that discussed above for entrants. There are four alternative methods for collecting attrition data by age, handicaps and reason for attrition (e.g., return to normal education, moved out of district). The first two are based upon the assumption that enrollment and waiting list data are kept separately at the local level and involve these data being reported separately, either by child name or numeric totals. In this case, children who transfer from the waiting list to the enrollment list should not be counted as either an attrition from the former or an entrant to the latter. The last two methods are the reporting, again either by child name or numeric totals, of attritions from the enrollment and waiting lists combined. Here too, if the reports are by child name and an automated list of the identified handicapped children is being sent to the

local districts, it would be preferable to have that list updated, with attritions noted and coded by reason, and a copy forwarded to the state at the end of the year.

Attritions from Waimano Training School and Hospital and the preschool classes are not currently tabulated or reported to either the Special Education Branch or the local districts in which the children reside. If through cooperative arrangements they are reported to and validated by the local districts, the Curriculum Specialists can include these children in their reports to the state.

Other Data Elements

Projections of Hawaii's school age population, used in conjunction with incidence rates by the Manpower Requirements Projection Model to calculate the projected number of new entrants into the handicapped child population, are made, by grade, annually in the Statistics Branch, Office of Business Services, Department of Education. These projections can easily be broken down by single year of age if such a projection is not made by another state agency.

The Director or the Administrators of the Special Education Branch and/or their staff of program specialists can provide the data needed to simulate special education. Thus, no further development effort is needed for these data elements:

- Trends in the number or proportion of enrolled children being served in each educational program, by target group (an educationally meaningful combination of handicapping condition and education level); termed educational program mix
- The types of personnel (occupational) serving each target group in each educational program and their associated personnel/pupil contact ratios.

If Hawaii wishes to collect data on the numbers of special education personnel employed, by type, in order to calculate the current manpower gap, data development would require a minimum of effort. Names of teachers employed, by type of handicap class, are currently reported by the Curriculum Specialists on the "Quarterly Report on Special Education Classes and Schools." With slight modification of that report format (e.g., addition of a few columns) or with the addition of a page, information about other special education personnel, including paraprofessionals, could easily be obtained from the districts and tabulated at the state level.

V. PROCESSING POTENTIAL

Systems analysis, computer programming, and data processing services for Hawaii's state government agencies are provided by the State-wide Information System (S.W.I.S.), an independent agency. S.W.I.S. maintains

a staff of analysts, programmers, operators, and keypunchers and has two computers, IBM System 360 Models 30 and 50, both of which have FORTRAN compilers and are adequate to handle a special education information system. The latter computer is adequate to handle the programmed Manpower Requirements Projection Model.

To obtain the services of S.W.I.S., the Special Education Branch need only fill out a "S.W.I.S. Request Sheet" (see page D11-31) describing the type of information system desired. This form is then reviewed, modified if necessary, and approved by the director of S.W.I.S. and his supervisors in charge of the Systems Analysis Branch and the Programming Branch. The current staff of S.W.I.S. is capable of designing, programming, keypunching input for, and operating a special education information system. Considering their current shortage of staff and their current and projected workload, S.W.I.S. personnel indicated to this analyst that in the near future they would be able to handle a system up to the level of sophistication of a modified pupil accounting system. There is no charge to users for these S.W.I.S. services.

The Administrators in the Special Education Branch are in favor of using the mathematical model to project special education manpower requirements, and they and their staffs are capable of preparing the input for and analyzing and evaluating the output from such a model. They also indicated a willingness to undertake any work necessary to assist and direct the implementation of a special education data collection and processing system.

VI. ADDITIONAL FACTORS

The only significant problem which may occur concerns the establishing of the cooperative arrangements, between Hawaii's state level agencies and with private physicians, and/or psychologists needed to set up diagnostic reporting procedures which are a prerequisite to the collection of accurate and complete data on the newly diagnosed handicapped child population. The effect of such arrangements on increasing communication between state sponsored clinics, etc., and local school districts is still a question-mark, as is the method to be used to increase communication between the persons providing the private diagnostic services and the local districts.

Concerning the reporting of newly diagnosed children between the school district and Special Education Branch and within the school district, the educational psychologist in the Branch is designing forms to be filled out by school psychologists and psychological examiners as part of the state-wide diagnostic system being implemented within the educational system. Other statistical report forms include one for speech and hearing diagnostic information and one for school social work (for examples of old forms, see pp. D11-29,30).

VII. RECOMMENDATIONS

In order to provide for data needs of the Manpower Requirements Projection Model and other data requirements of the Special Education Branch, it is recommended that Hawaii consider either a data summary type of system (in which the data elements are summarized into categories by the local districts and used in summary form by the state information system) or a modified pupil

accounting system (in which there is a data record for each handicapped child), e.g., one without scheduling and academic testing information included in each child's data record. Since the availability of systems analysis and data processing services is not likely to become a constraint, the decision as to the type of system that will be implemented should be based upon the intended state and local use of the data and upon the amount of local effort required to supply the data.

If a register of handicapped children is not to be maintained at the state level, the data summary system is recommended. To initiate this system, a set of simple matrix formats, similar to that on the suggested modification of form RS-201-B, could be used by the Curriculum Specialists to report enrollments in their districts. One matrix format would be used for each type of educational program (e.g., special day class, cooperative class, itinerant instruction) existing in the district. The same formats could also be used by the state operated Waimano Training School and Hospital and the preschool classes and by the privately operated special classes to report their enrollments.

The remaining data for this data summary system, i.e., waiting list data, data on new entrants to the handicapped population needing special education, and data on attritees from that population, should be requested in summarized form on matrices, one for each data element, similar in design to that presented in Figure 2. Blank copies of these matrices can be used by the local district's Curriculum Specialist in a hash-mark fashion to record the data during the year. The totals could then be transferred to a new set of matrices for transmittal to the Special Education Branch.

Handicapping Condition / Age / Source	Blind		Partially Sighted	
	Newly Diagnosed	Intra-state Transfer	Newly Diagnosed	Intra-state Transfer
2	///		~~////~~ /	
3				
4		/		//
5	////		~~////~~ ~~////~~	
6		//		
7	/		~~////~~ //	

FIGURE 2. EXAMPLE OF MATRIX FORMAT TO COLLECT LOCAL DISTRICT DATA ABOUT NEW ENTRANTS TO HANDICAPPED CHILD POPULATION AND EXAMPLE OF HASH-MARK ENTRIES

If a register of handicapped children is to be maintained at the state level, it is recommended that a modified pupil accounting system be implemented. Such an automated system, having the feature that the data need only be updated yearly, not replaced, would reduce the amount of data flowing from the local districts to the state and would ease the reporting tasks of the local districts.

This could become an important factor if the seven districts are ever reorganized into 30 educational complexes.

To initiate the system, a form could easily be developed to request information from each local school district about each handicapped child eligible for special education. Such information should include but not be limited to child name, birth date, address (street, city or post office, and zip code), school district number, father's first name, mother's first name, diagnosed primary handicap (coded), diagnosed secondary handicap (coded), date of diagnosis (if obtainable), education status (coded: type of education he is currently receiving, type of education he should be receiving), date of entrance into the local district, date of most recent entrance into special education, reason for (coded) and date of most recent attrition from special education, date of attrition from the local district, and miscellaneous diagnostic testing information. An example of part of such a form is shown in Figure 3.

Each of the two parts of the variable called education status could be coded as a two-digit code, with the first digit representing the handicapped condition for which the education is oriented and the second digit representing the type of educational program. Some examples of this are shown in Table 1. Using this coding scheme, a child who is currently receiving itinerant instruction for the emotionally handicapped and is on the waiting list for one of the state residential special schools would be coded as 77/72; a child who is currently in regular education awaiting entrance into a cooperative class program for the orthopedically handicapped would be coded as 01/85.

The recommended systems design for such an automated pupil accounting system is presented in Figure 4. The following discussion may be easier to understand if this figure is kept in mind.

When the initial handicapped children file (alphabetically by child name within handicapping condition within local district) has been generated, two copies of an automated list of the children should be sent to each local district. The updating of the file can be done either periodically or at year end. Because it is always preferable to spread a workload over the greatest possible time period, it is recommended that changes to the automated list be sent to the state periodically (at least bi-monthly) by the local districts. Simple forms (similar to the form requesting the initial information) specifically for this purpose can easily be designed so that a minimum of information needed for updating would be required of the local districts. A continuing system such as this that would require only periodic updating has the advantage of significantly reducing the volume of reporting to the state which the local district's Curriculum Specialist must do. For example, instead of having to report all

District _____

Submitted by _____

Date _____

Department of Education
Office of Instructional Services
Special Education Branch
Honolulu, Hawaii

Initial Report of All Handicapped Minors Eligible for Special Education

Child Name	Birth Date			Address			Fathers Name or Male Guardian	Mothers Name or Female Guardian	Primary Handicap	Secondary Handicap	Date of Diagnosis			Educ Status		
	Mo	Day	Yr	Street	City or P.O.	Zip					Mo	Day	Yr	Pres	Should	
1.																
2.																
3.																
4.																
5.																
6.																
7.																
8.																
9.																
10.																
11.																
12.																
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18.																
19.																
20.																
21.																
22.																
23.																
24.																
25.																

FIGURE 3. EXAMPLE OF REPORT FORM TO COLLECT INITIAL DATA FOR A MODIFIED PUPIL ACCOUNTING SYSTEM

TABLE 1

POSSIBLE CODING SCHEME FOR THE VARIABLE EDUCATION STATUS

First Digit = handicapping condition for which the education is oriented

0 = none

1 = mentally retarded, educable

2 = mentally retarded, trainable

3 = blind

4 = partially sighted

7 = emotionally handicapped

8 = orthopedically handicapped

Second Digit = type of educational program

0 = none

1 = regular class

2 = residential school

3 = day special school

4 = day special class

5 = cooperative special class

6 = resource room

7 = itinerant instruction

8 = homebound instruction

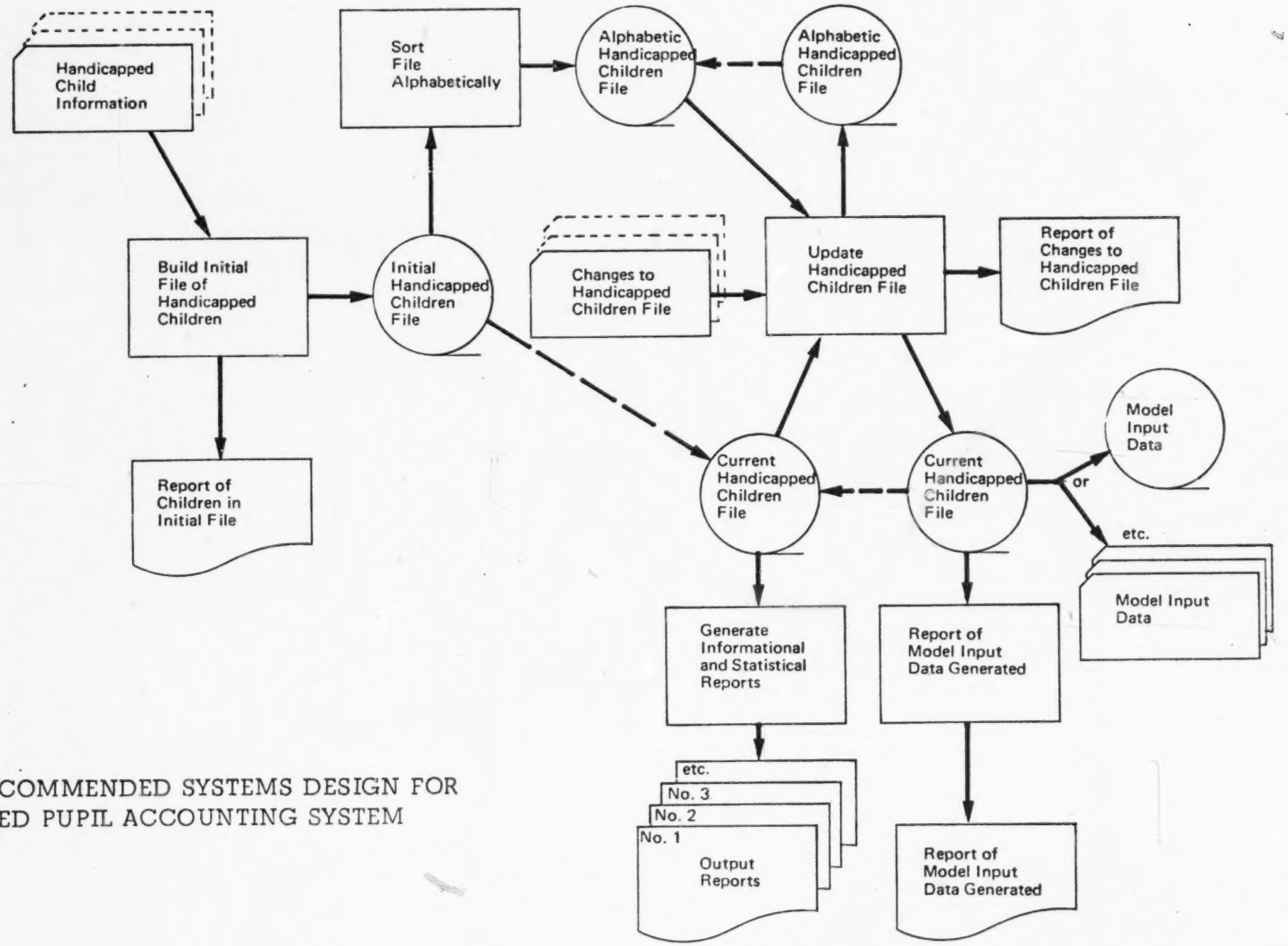

FIGURE 4. RECOMMENDED SYSTEMS DESIGN FOR A MODIFIED PUPIL ACCOUNTING SYSTEM

identified children each year, a local district needs to report only the changes to that population, which may involve only 20-25 percent of the children.

As should be apparent from the above discussion, the local districts education Curriculum Specialist should have the responsibility for keeping all handicapped child data and be the focal point of data collection. Realistically, these assumptions are based upon soliciting the cooperation of the state agencies operating Waimano Training School and Hospital and the preschool classes for the mentally retarded trainable and the blind. If these agencies or the persons responsible for the special education services will send to each local district a list of the district's children who are enrolled in or on a waiting list for their services, the district's Curriculum Specialist can include these children in his report to the state. Since the number of children involved is small, it should not be too difficult to solicit such cooperation.

From the current handicapped children file, many reports of interest (informational and statistical) and all of the child related data needed by the special education Manpower Requirements Projection Model can easily be generated. The records of those children who are reported as attritions should contain the date of such attrition and should be flagged and retained on an alphabetically sorted file for at least one year to ensure that intra-state transfers are recognizable using the variables for date of most recent entrance into special education and/or the local district, and reason for and date of most recent attrition from special education and/or the local district; a child who has moved from one local district to another will be reported as an attrition from the first and an entrant into the second but, when data is tabulated, will not be included in state-wide totals for new entrants and attritees.

The alphabetically sorted handicapped children file is used to eliminate the possibility of a child being reported by more than one local district, as would be the case if a child moved and was reported as a new entrant by his new district before the old district reported him as an attrition. In this case, the child's record can be flagged to indicate that this has happened. The alphabetic file could also be used to generate the data needed by the model if interim totals by district are not needed by the Special Education Branch for any purpose (however, these interim totals are the basis of the reimbursement which the local agencies receive for special education).

VIII. RESOURCE REQUIREMENTS—MANPOWER

If the data summary type of system is to be implemented in Hawaii, it is estimated that three man-weeks will be required to design and/or redesign data collection instruments and to obtain approval of the new forms. As long as there are only seven school districts reporting, the data can easily be hand tabulated in two man-weeks. If reorganization takes place, such hand tabulation may take up to six man-weeks.

It is estimated that two man-months will be required for a systems analyst/programmer to accomplish the required systems design, coordination, and computer programming/debugging for the modified pupil accounting system as outlined in Section VII. In addition, approximately one man-month will be required to design and/or redesign data collection instruments and to obtain approval of the new forms.

The task of coordinating with the local districts (i.e., training the Curriculum Specialists to fill out the new forms, engendering their support for the information system, and ensuring completeness and validity of the reported data) could probably be assigned part-time to all the program specialists in the Special Education Branch. This effort would probably require about 1 man-month of special education staff effort for the data summary system and about 2 man-months of effort if the pupil accounting system were implemented, over a 12 to 18 month period of time. After the big push to get the system initiated, these program specialists will be the only state level personnel that are familiar enough with the situations in the local districts to make accurate judgments about the completeness and validity of the initial data. Thereafter, the task of ensuring that data to update the system is reliable will require very little (less than 1 man-month) effort on the part of the program specialists.

The Director or the Administrators of the Special Education Branch, by virtue of their position and influence, are the only persons who can arrange for the cooperation of the Departments of Health and Social Services in reporting handicapped child data and the cooperation of private physicians and/or psychologists in reporting newly diagnosed handicapped children. Arrangements with the latter two groups of people could possibly be made through the Department of Health and their local health officers. The amount of time that this will take is dependent upon the attitudes and the organizational structure of the state agencies and organizations involved.

IX. PERSONS INTERVIEWED

The persons interviewed by the ORI (Leasco) representative, Miss Beverly Johns, during the week of 6 October 1969 were:

Dr. Hatsuko F. Kawahara	Administrator, Special Projects Section, Special Education Branch, Office of Instructional Services, Department of Education
Mrs. Marjorie Lau	Administrator, Special Education Section, Special Education Branch, Office of Instructional Services, Department of Education
Mr. William Fujikawa	Program Specialist, Mentally Handicapped, Special Education Section, Special Education Branch
Dr. James Harris	Educational Psychologist, Special Projects Section, Special Education Branch
Mrs. Patricia Wallace	Program Specialist, School Social Work, Special Education Section, Special Education Branch
Mr. Fusao Uchiyama	Curriculum Specialist, Special Education, Honolulu School District
Mr. Rentz Thomas	Counselor, Linekona School, Honolulu School District
Mr. Sik Kum Tsui	Principal, Pohukaina School, Honolulu School District
Mr. Charles Araki	Research Statistician, Statistics Branch, Office of Business Services
Mr. Charles Clark	Personnel Branch, Department of Education
Mr. Bert Yamaguchi	Supervisor of Programmers, State-Wide Information System (S.W.I.S.)

Dr. Angie Connor	Executive Officer, Learning Disabilities Clinic, Waimano Training School and Hospital, Department of Health
Dr. D.V. Reddy	Chief, Crippled Children Branch, Department of Health
Dr. Margaret Lane	Pediatrician, Crippled Children Branch, Department of Health
Dr. Audry W. Mertz	Executive Officer, Mental Health Division, Department of Health
Miss Kikuyo Suematsu	Speech and Hearing Consultant, Children's Health Services Division, Department of Health

X. CURRENT REPORT FORMATS

- RS-201-Part A—Report on Pupil Membership
- RS-201-Part B—Report on Pupil Membership and Attendance
- RS-201-Part C—Report on Pupil Membership and Attendance
- Proposed modification of RS-201-Part B
- Proposed modification of RS-201-Part C
- Report on Special Education Classes and Schools
- Quarterly Report on Special Education Classes and Schools
- Statistical Report for Special Education Programs
- Quarterly Report of Psychological Evaluation
- Individual Work Reports on Services Rendered During the School Year 19__-19__
- Speech-Hearing Semester Report
- School Social Work Statistical Report
- S.W.I.S. Request Sheet

Form RS-201-A (DUE IN SEPT.)
(Rev. 7/67)

STATE OF HAWAII
DEPARTMENT OF EDUCATION

REPORT ON PUPIL MEMBERSHIP

School _____ Date _____ Signature of Principal _____
School Code

GRADE / GROUP	TOTAL REGULAR	CERTIFIED FOR SPECIAL EDUCATION CATEGORIES (Do not include these students within the count of "Regular" students)									GRAND TOTAL
		MENTALLY RETARDED	CRIPPLED CHILDREN	HEARING HANDICAPPED	LANGUAGE DISORDERS	EMOTIONALLY HANDICAPPED	VISUALLY HANDICAPPED	OTHER (SPECIFY)	OTHER (SPECIFY)	TOTAL SPECIAL	
NURSERY											
KINDERGARTEN											
GRADE 1											
GRADE 2											
GRADE 3											
GRADE 4											
GRADE 5											
GRADE 6											
GRADE 7											
GRADE 8											
GRADE 9											
GRADE 10											
GRADE 11											
GRADE 12											
OTHERS											
TOTAL											

(REPRODUCED FROM STATE FORM)

D11-20

Form RS-201-B (DUE IN DEC.)
(Rev. 7/67)

STATE OF HAWAII
DEPARTMENT OF EDUCATION

REPORT ON PUPIL MEMBERSHIP AND ATTENDANCE

School: _____ Address _____ Date _____ Principal's Signature _____

School Code

Grade / Age	Nrsry	REGULAR STUDENTS													CERTIFIED FOR SPECIAL EDUCATION (Do not include these students within the count of "Regular")								GRAND* TOTAL
		Kdgn	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	Grade 9	Grade 10	Grade 11	Grade 12	Mental Retard.	Crippled Children	Hearing Hndcp.	Language Disorder	Emot. Hndcp.	Visual Hndcp.	Other Specify	Other Specify	
4yrs & under																							
5 years																							
6 years																							
7 years																							
8 years																							
9 years																							
10 years																							
11 years																							
12 years																							
13 years																							
14 years																							
15 years																							
16 years																							
17 years																							
18 years																							
19 years																							
20 years																							
21yrs & over																							
Male																							
Female																							
Total																							

(REPRODUCED FROM STATE FORM)

ATTENDANCE	Nrsry	Kdgn.	Elem. (Grs. 1-6)	Sec. (Grs. 7-9)	Sec. (Grs. 10-12)	MR	CC	HH	LD	EH	VH	OTHER	OTHER	21 years and over
Days in Session														
Aggregate Days Attendance														
Aggregate Days Absence														

Do Not Complete Below This Line														
Average Daily Membership														
Average Daily Attendance														
Average Daily Absence														

* Do not include nursery

Form RS-201-C (DUE IN JUNE)
(Rev. 7/67)

STATE OF HAWAII
DEPARTMENT OF EDUCATION

REPORT ON PUPIL MEMBERSHIP AND ATTENDANCE

School: _____ School Code _____ Address _____ Date _____ Principal's Signature _____

ENROLLMENT

	REGULAR STUDENTS														CERTIFIED FOR SPECIAL EDUCATION (Do not include these students within the count of "Regular" students								GRAND TOTAL
	NRSRY	KDGN	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	Grade 9	Grade 10	Grade 11	Grade 12	Ment. Retd.	Crip. Chld.	Hear. Hndp.	Lngge. Dendr.	Emot. Hndp.	Visly. Hndp.	Other Spec.	Other Spec.	
Male																							
Female																							
Total																							

NUMBER RETAINED IN GRADE

	KDGN	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	Grade 9	Grade 10	Grade 11	Grade 12	All Others
Male														
Female														
Total														

(REPRODUCED FROM STATE FORM)

PUPILS GRADUATED THIS JUNE FROM GRADE 12	
Male	
Female	
Total	

ATTENDANCE

	Nrsry	Kdgn	Elem. (Gr. 1-6)	Sec. (Gr. 7-9)	Sec. (Gr. 10-12)	MR	CC	HH	LD	EE	VH	OTHER	21 years and over
Days in Session													
Aggregate Days Attendance													
Aggregate Days Absence													

Do Not Complete Below This Line

Average Daily Membership													
Average Daily Attendance													
Average Daily Absence													

280

D11-22

DOE-RS-201-8

STATE OF HAWAII
DEPARTMENT OF EDUCATION

REPORT ON PUPIL MEMBERSHIP AND ATTENDANCE

School _____ Address _____ Date _____ Principal's Signature _____

School Code

Grade / Age	Nrsry	Kdgn	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	Grade 9	Grade 10	Grade 11	Grade 12	Mental. Retard. EMR	Mental. Retard. MMR	Crip. Child.	Hearing Indep. Deaf	Hearing Indep. Hard Hrng.	Learn. Disa.	Emot. Indep.	Visual. Indep. Blind	Visual. Indep. Part Sight.	Other Specify	Other Specify	GRAND TOTAL
3 years																										
4 years																										
5 years																										
6 years																										
7 years																										
8 years																										
9 years																										
10 years																										
11 years																										
12 years																										
13 years																										
14 years																										
15 years																										
16 years																										
17 years																										
18 years																										
19 years & over																										
White																										
Hawaiian																										
Total																										

REGULAR STUDENTS

SPECIAL EDUCATION STUDENTS (Do not include these students within the count of "Regular")

(REPRODUCED FROM STATE FORM)

ATTENDANCE

	Nrsry	Kdgn	Elem. (Grs. 1-6)	Sec. (Grs. 7-9)	Sec. (Grs. 10-12)	MR EMR	MR MMR	CC	HH Deaf	HH Hard Hrng.	LD	EH	VH Blind	VH Part Sight.	OTHER	OTHER	21 years and over
Days in Session																	
Aggregate Days Attendance																	
Aggregate Days Absence																	

Do Not Complete Below This Line

Average Daily Membership																	
Average Daily Attendance																	
Average Daily Absence																	

D11-23

281

[illegible] 25-201-C

STATE OF HAWAII
DEPARTMENT OF EDUCATION

REPORT ON PUPIL MEMBERSHIP AND ATTENDANCE

[illegible]ool _____ Address _____ Date _____ Principal's Signature _____

School Code

ENROLLMENT

	REGULAR STUDENTS														SPECIAL EDUCATION STUDENTS (Do not include these students within the count of "Regular" students)											GRAND TOTAL
															Mental. Retard.		Crip. Child.	Hearing Hndcp.		Learn. Disa.	Emot. Hndcp.	Visual. Hndcp.		Other Specify	Other Specify	
	NRSRY	KDGN	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	Grade 9	Grade 10	Grade 11	Grade 12	MRE	MRT		Deaf	Hard of Hrng.			Blind	Part. Sight.			
[illegible]																										
[illegible]																										
[illegible]																										

NUMBER RETAINED IN GRADE

	KDGN	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	Grade 9	Grade 10	Grade 11	Grade	All Others
[illegible]														
[illegible]														
[illegible]														

(REPRODUCED FROM STATE FORM)

PUPILS GRADUATED THIS JUNE FROM GRADE 12

	Reg.	MR		CC	HH		LD	EH	VH		Other Specify
		MRE	MRT		Deaf	HH			Blind	Part. Sight.	
Male											
Female											
Total											

ATTENDANCE

	Nrsry	Kdgn	Elem. (Gr. 1-6)	Sec. (Gr. 7-9)	Sec. (Gr. 10-12)	MR		CC	HH		LD	EH	VH		OTHER	21 years and over
						MRE	MRT		Deaf	HH			Blind	PS		
[illegible] Session																
[illegible] Days Attendance																
[illegible] Days Absence																

Do Not Complete Below This Line

[illegible] Daily Membership																
[illegible] Daily Attendance																
[illegible] Daily Absence																

D11-24

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School_____

Principal's Signature_____

Date_____

Department of Education
Office of Instructional Services
Special Education
Honolulu, Hawaii

REPORT ON SPECIAL EDUCATION CLASSES AND SCHOOLS

Name of Teacher (Indicate if vacant)	NUMBER OF STUDENTS ENROLLED PER CLASS										LEVELS					NO. OF CERTIFIED STUDENTS AWAITING SPECIAL CLASS PLACEMENT									
	Mental. Retard.		Crip. Child.	Hearing Hndcp.		Learn. Disab.	Emot. Hndcp.	Visual Hndcp.		Others (Indicate)	Lower Elem. (6-9)	Upper Elem. (10-12)	Inter. (13-15)	High (15+)	Combination (Indicate)	Mental. Retard.		Crip. Child.	Hearing Hndcp.		Learn. Disab.	Emot. Hndcp.	Visual. Hndcp.		Others (Indicate)
	MRE	MRT		Deaf	Hard of Hrng.			Blind	Part. Sight.							MRE	MRT		Deaf	Hard of Hrng.			Blind	Part. Sight.	

(REPRODUCED FROM STATE FORM)

District _____

Submitted By _____

Date _____

Department of Education
Office of Instructional Services
Special Education
Honolulu, Hawaii

District Pupil Enrollment:

K _____
1 - 6 _____
Inter. _____
High _____
TOTAL _____

QUARTERLY REPORT ON SPECIAL EDUCATION CLASSES AND SCHOOLS

SECTION I

Name of School	Name of Teacher* (Indicate if vacant)	NUMBER OF STUDENTS ENROLLED PER CLASS										LEVELS				
		MRE	MRT	EH	LD	Blind	Part. Sight.	Deaf	Hard of Hrng.	Ortho. Hand.	Others (Indicate)	Lower Elem. (6-9)	Upper Elem. (10-12)	Inter. (13-15)	High (15+)	Combination (Indicate
TOTALS																

SECTION II

NO. OF CERTIFIED STUDENTS AWAITING SPECIAL CLASS PLACEMENT									
MRE	MRT	EH	LD	Blind	Part. Sight.	Deaf	Hard of Hrng.	Ortho. Hand.	Others (Indicate)

(REPRODUCED FROM STATE FORM)

* 1969-70 Budget shows the total number of special education position allocation (certificated positions) in your district as _____.
If any new allocated positions beyond this figure have been approved, please include and designate as such.

Instructions: Prepare in triplicate
2 copies to State
1 copy to District

D11-26

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DEPARTMENT OF EDUCATION
Office of Instructional Services
Special Services Branch
Honolulu, Hawaii

STATISTICAL REPORT FOR SPECIAL EDUCATION PROGRAMS

AS OF October 31, 1968

District Honolulu

Submitted by: F. Uchiyama

Date: November 29, 1968

NAME OF SCHOOL	Central Inter.	Dole Inter.	Farrington High	Jarrett Inter.	Jefferson Elem.	Kaewai Elem.	Kahala Elem.	Kaimuki High	Kaimuki Inter.	Kaiulani Elem.	Kalakaua Inter.	Kalani High	Kalihi Elem.	Kalihi-kai Elem.	Kalihi-waena Elem.	Kauluwela Elem.	Kawananakoa Inter.	Sub-TOTAL
ENROLLMENT																		
No. of Classes for MRE	3	2	4	1	2	2			2	2	3		2	3	2	3	1	32
No. of MRE Pupils	44	29	64	11	26	24			22	18	41		27	26	23	30	8	393
No. of Classes for MRT						1												1
No. of MRT pupils						8												8
No. of Classes for Emot. Hand.					1						1							2
No. of Emot. Hand. Pupils					3						5							8
No. of Sp. Motivation Classes	1		2					2				1						6
No. of Sp. Motivation Pupils	15		46					37				15						113
No. of Classes for the Blind																		
No. of Blind Pupils																		
No. of Partially Sighted Pupils																		
No. of Classes for the Deaf	1																	4
No. of Deaf Pupils																		
No. of Hard of Hearing Pupils	8						25											33
No. of Classes for Ortho. Hand.																		
No. of Ortho. Hand. Pupils																		
No. of Homebound Pupils																		
No. of L.D. Classes										1	1						1	3
No. of L.D. Pupils										8	5						5	18

(REPRODUCED FROM STATE FORM)

Department of Education
Office of Instructional Services
Special Services Branch
Honolulu, Hawaii

GSE Form 6
May, 1968 (Rev.)

QUARTERLY REPORT OF PSYCHOLOGICAL EVALUATION

1968 to 1969 School Year

District Central Submitted by Nyna M. Ralston Date June 26, 1969

	No. of Cases Referred		No. of Cases Tested		No. of Cases on Waiting List for Psychological Evaluation	Number of Cases Referred to:							Number of Conferences				Children Placed in Regular Classes	No. Certified for Placement in special classes--designate category	Comments
	Boys	Girls	Boys	Girls		DMR[1]	DMH[2]	LDC[3]	VR[4]	DSS[5]	FC[6]	Others	Parent	School Personnel	Agency	Collateral			
Grades K - 3	188	96	158	73	53	2	11	21				189						10 (LDC)	76 children tested in the summer of 1968
Grades 4 - 6	125	46	118	44	9		6	4				152						3 (EH)	
Grades 7 - 9	30	10	28	10	2		3					35						75 (MR)	
Grades 10 - 12	7	6	7	6								13							
Special Classes	15	6	15	6			1		5										
Totals	365	164	326	139	64	2	21	25	5			389	25	732	57	140			

[1]DMR--Division of Mental Retardation
[2]DMH--Division of Mental Health
[3]LDC--Learning Disabilities Clinic
[4]VR--Vocational Rehabilitation
[5]DSS--Division of Social Services
[6]FC-- Family Court

(REPRODUCED FROM STATE FORM)

APPROVED BY:

for District Superintendent

Department of Education
Office of Instructional Services
Special Education Branch
Honolulu, Hawaii

INDIVIDUAL WORK REPORTS ON SERVICES RENDERED DURING THE SCHOOL YEAR 1968-1969

District Central Submitted by Nyna M. Ralston Date June 26, 1969

School	No. of Children Referred	No. of Children Evaluated	No. of Children Tested to be Placed in Special Program (Designate Program)	No. of Written Reports Submitted to School	No. of Conferences with Teachers	No. of Conferences with Parents	No. of Children on Waiting List to be Evaluated
Aiea Elementary	4	3	2 (EH), 13 (MR) 7(LD)	3	1	2	1
Aiea Intermediate	14	14	2 (MR)	14	4	1	
Aliamanu Elementary	14	14		14	2		
Halawa	7	4		4			3
Hale Kula	45	19		19	6	6	26
Haleiwa	11	11	4 (MR)	11	1		
Helemano	6	6		6		1	
Hickam	2	1		1			1
Ilishi	11	8		8			3
Kaala	4	4		4			
Leilehua	7	7		7			
Moanalua Elementary	11	11		11	4	3	
Moanalua Intermediate	2	1		1			1
Mokulele	3	2		2			1
Nimitz	11	11		11	6		
P. H. Elementary	8	5		5		2	3
. H. Kai	21	17	12 (MR)	17	3		4
Radford	4	4		4	12	3	
Red Hill	8	8		8			
Cont'd.							

roblems encountered during the school year:

(REPRODUCED FROM STATE FORM)

Comments:

State Copy

D11-29

S-H 5
REV. 7-67

SPEECH - HEARING SEMESTER REPORT

Speech-Hearing Specialist _____ Period Covering _____ to _____

District _____

	SCHOOL											TOTAL
HEARING TESTING	Total Population Screened											
	Significant Losses											
	Medical Referrals											
	Old Cases from Other Grades & Teacher Referrals											
	Significant Losses											
	Medical Referrals											
	Total Educ. Sig. Losses											
TYPES OF SPEECH CASES	Total Speech Evaluations											
	Receiving Help from S-H Specialist											
	Articulation											
	Stuttering											
	Language Disorders											
	Cleft Palate											
	Hearing											
	Voice Disorder											
	Delayed Speech											
	Cerebral Palsy											
RESULTS	Dismissed — Adequate Speech											
	Recheck											
	Further Help Probably Needed											

(REPRODUCED FROM STATE FORM)

(over)

SCHOOL SOCIAL WORK
STATISTICAL REPORT

District_____ Caseworker_____ Month_____ 19_____

1. CASELOAD	Direct Service	Cons. Service	Total Number
Carried Over			
Transferred In			
Incoming			
a. TOTAL			
Closed			
Transferred Out			
b. TOTAL			
c. CASELOAD CARRIED FORWARD			
2. INCOMING CASELOAD ANALYSIS			
a. Status			
New			
Reopened			
b. Referrals From School Personnel			
Parent/Relative			
Pupil			
Agency			
Other			
c. Referral Reason(s) Attendance			
Peh./Personality			
Home Situation			
Learning Prob.			
Physical Factors			
Unwed Mothers			
Other			

3. CASEWORK INTERVIEWS	Direct Service	Cons. Service	Total Number
Pupil			
Teacher			
Other School Personnel			
Parent or Relative			
Agency			
Other			
TOTAL NUMBER			
4. CONFERENCES			
5. SERVICE(S) USED			
Department of Education			
Compensatory Education Programs			
Emotionally Handicapped Classes			
Home-Hospital Instruction			
Mentally Retarded Program			
Phy. Hand. Classes/Schools			
Psychological Services			
Speech-Hearing Services			
Tutorial Services (Other)			
Other			
Community Service(s)			
Armed Services			
Division of Mental Health			
Other Department of Health			
Employment Services			
Family Court			
Private Medi[illegible]al Services			
Social S[illegible] Agency			
Tut[illegible]es			
[illegible] NUMBER			
[illegible]F ACTIVITY			
Staff Meetings			
SSW Staff Development			
School-Community Service			
Other			

(REPRODUCED FROM STATE FORM)

Prepare in triplicate: 1 copy to State Office
1 copy to District Office
1 copy to Social Worker

Revised 9/69

SWIS-65
F-504
Rev. 67

S.W.I.S. REQUEST SHEET

To: Director, State-wide Information System

From: _____ Requested Completion Date _____ Request Date _____

☐ NEW PROGRAM ☐ PROGRAM CHANGE ☐ OPERATIONAL CHANGE

Request and Reasons for Request:

(REPRODUCED FROM STATE FORM)

Date	Originator's Signature	Date	Authorized Signature

State-wide Information System Division

Remarks:

☐ APPROVED ☐ DISAPPROVED

Assignment to: _____

Completion Date: _____

Date	Director, S.W.I.S.

TABLE 2
SUMMARY OF DATA DEVELOPMENT STATUS
HAWAII

DATA ELEMENTS			LOCAL PUBLIC SCHOOL DISTRICTS AND MOST SPECIAL SCHOOLS: CURRENT STATUS	METHOD OF DEVELOPMENT	SOURCE OF DATA	STATE SCHOOLS AND CLASSES OPERATED BY DEPARTMENTS OF HEALTH AND SOCIAL SERVICES: CURRENT STATUS	METHOD OF DEVELOPMENT	SOURCE OF DATA	PRIVATE SCHOOL DATA
NUMBER OF CHILDREN IDENTIFIED AS NEEDING SPECIAL EDUCATION	ENROLLED	AGE	Available by handicap and either age or school	Report totals on simple matrix form to special education for hand tabulation or by child name for automated system	Curriculum specialist in each district or educational complex	Exists but not reported to Special Education Branch	Make cooperative arrangements, then request data on forms similar to those used by LEA. Transmit either directly to Special Education Branch or to applicable local districts	Executive offices in charge of each school or group of classes	On voluntary basis, data could be requested to be transmitted to applicable local districts on modifications of local district report formats
		HANDICAPPING CONDITION							
		EDUCATION PROGRAM							
	ON WAITING LIST	AGE	Available only by handicap and education level						
		HANDICAPPING CONDITION							
NUMBER OF CHILDREN MOVING INTO AND OUT OF IDENTIFIED HANDICAPPED CHILD POPULATION	NEWLY DIAGNOSED AS NEEDING SPECIAL EDUCATION	AGE	Not systematically available	Report diagnosis to locals locals process data as for enrollments					
		HANDICAPPING CONDITION							
	INTRA-STATE TRANSFERS	AGE	Not available at state level	Report diagnosis to locals locals process data as for enrollments					
		HANDICAPPING CONDITION							
	ATTRITION FROM THE IDENTIFIED HANDICAPPED POPULATION	AGE	Not available at state level						
		HANDICAPPING CONDITION							
		REASON							
YEARLY PROJECTIONS OF THE CHILD POPULATION, BY AGE			Available by grade	Interpolate by age or modify projection	Office of Business Services, Department of Education				
DATA USED TO SIMULATE SPECIAL EDUCATION	EDUCATION PROGRAM MIX TRENDS		Available as defined by legislation, policy, and planning	Not applicable	Special Education Branch personnel				Request voluntary information from each school
	TYPES OF PERSONNEL AND PERSONNEL/PUPIL CONTACT RATIOS	TARGET GROUP							
		EDUCATION PROGRAM							
OPTIONAL: NUMBER OF SPECIAL EDUCATION PERSONNEL EMPLOYED, BY TYPE			Not available at state level	Request totals by occupation	Department of Education Personnel Office or LEA	Available by hand count.			

IDAHO STATE ANALYSIS REPORT

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		Page
I.	INTRODUCTION	D12-1
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III.	RESPONSIBILITIES FOR SPECIAL EDUCATION	D12-2
IV.	DATA ELEMENT EVALUATION	D12-3
V.	PROCESSING POTENTIAL	D12-14
VI.	ADDITIONAL FACTORS	D12-14
VII.	RECOMMENDATIONS	D12-15
VIII.	RESOURCE REQUIREMENTS—MANPOWER	D12-17
IX.	PERSONS INTERVIEWED	D12-19
X.	CURRENT REPORT FORMATS	D12-19

The research reported herein was performed pursuant to Contract No. OEC 0-9-08928-0710 with the Bureau of Education for the Handicapped, Office of Education, U.S. Department of Health, Education, and Welfare. Contractors undertaking such projects under Government sponsorship are encouraged to express freely their professional judgment in the conduct of the project. The points of view or opinions stated do not, therefore, necessarily represent official Bureau position or policy.

IDAHO STATE ANALYSIS REPORT

I. INTRODUCTION

Sponsored by the Bureau of Education for the Handicapped (BEH), Operations Research, Inc. (ORI) has developed a mathematical model that provides the framework for systematic consideration and evaluation of major elements contributing to the determination of special education manpower needs. The model has been designed for application by state special education agencies and, when fully implemented, will assist each state in the systematic prediction of its own special education manpower needs. The model has been designed for application by state special education agencies and, when fully implemented, will assist each state in the systematic prediction of its own special education manpower needs, based upon individual state educational characteristics. The model will simulate present and future manpower needs under varying assumptions regarding changes in personnel/pupil contact ratios, the educational program mixes, the child participation rate, or any combination of these variables.

Following development of this Manpower Requirements Projection Model, a visit was made to each of the 50 state special education agencies in order to familiarize the states with the objectives of the program and to conduct a survey of current state information flow procedures. The purpose of the survey was to review and analyze the capability and potential for utilization of this model by the state agencies responsible for the education of handicapped children. The survey included an analysis of:

a. The capability of existing information flow processes to provide the necessary model input data

b. The existing automatic data processing capability to process the model program

c. The special education staff capability and desire to utilize the model.

This report presents the findings of the survey in the State of Idaho, and contains recommendations pertaining to the establishment of information flow procedures for model utilization as well as to the improvement of general information availability for special education program management. The data development status is summarized in Table 3 at the end of this report.

II. SUMMARY

Idaho has special education problems similar to other states having large land areas and widely spread population. These factors add to the difficulty of assembling enough students to permit the formation of an educational unit; of obtaining qualified special education personnel; and of establishing a coordinated diagnostic procedure. The shortage of qualified special education personnel is recognized as a major problem, and the gap between personnel requirements and availability is so great that the precise analytical capability provided by the Manpower Requirements Projection Model would not, at this time, contribute toward planning the resolution of the problem.

However, the need for more information and improved methods for obtaining and utilizing data will be required as special education programs expand and the number served increases. Idaho's Special Education Group currently collects only a small amount of the data required by the model. However, because the basic information flow to collect the required data is already in existence, and because the cost of doing so is nominal, the state staff is willing to initiate appropriate data collection procedures. The model could then be applied as the need for its capabilities becomes warranted.

III. RESPONSIBILITIES FOR SPECIAL EDUCATION

The State Department of Education has responsibility for directing, financing, and monitoring operations of all public schools, and also has the responsibility of providing for special education services in those schools. The appointed Board of Education works with an elected State Superintendent of Public Instruction. The state deals directly with about 105 school districts, rather than with the 44 counties.

The special education staff, under its Director, describes its responsibilities as follows:

a. Education of the public concerning awareness, knowledge, and understanding of the needs of special education

b. Consultation services for the school districts

c. Administrative services

   1. Approval of local programs for state financial support

2. Application for and distribution of ESEA Title VI and PL 85-926 funds

3. Prepare specific written guidelines for classroom initiation and operation, aside from legislated materials, and teacher certification.

The Idaho State School and Hospital, under the State Department of Health, is the only state institution for mentally retarded. The State School for the Deaf and the Blind is directly responsible to the governor. Neither the two state hospitals for mentally ill nor the State Youth Training Center (for legal delinquents) operates a special education program and none are expected in the foreseeable future.

The relationship of the various agencies that participate in the education of handicapped children in Idaho is informally presented in Figure 1. This diagram shows only those agencies which have some responsibility for handicapped child education and is not intended to include all of the many other functions which each agency performs.

IV. DATA ELEMENT EVALUATION

Some specific data elements are necessary to the use of the Manpower Requirements Projection Model. The information which these data elements provide may also be very useful to Special Education for other operational analyses. These data elements and their potential sources are discussed in the following paragraphs.

The special education programs available in Idaho are summarized in Table 1. An examination of this table shows that the data sources and programs available are limited to a few handicapping conditions in the public school system with state institutions providing the balance of the service. No full time public school programs are available for emotionally disturbed, blind, partially sighted, or hard-of-hearing.

Number of Children Identified as Needing Special Education

There are two categories of information pertinent to the identified handicapped child population: those enrolled in special education programs, and those diagnosed as needing special education services and waiting to be enrolled.

Enrolled. Enrollment data elements required for model application include summaries by single year of age, handicapping condition, and special education program category (residential special class, standard class, itinerant, etc.).

Two forms are used to report enrollment data in Idaho: Form SDE-408-568, "Enrollment in State Approved Special Education Classes," (see Figure 2) and Form SDE 1968, "Speech and Hearing Report" (see Section X, p. D12-21).

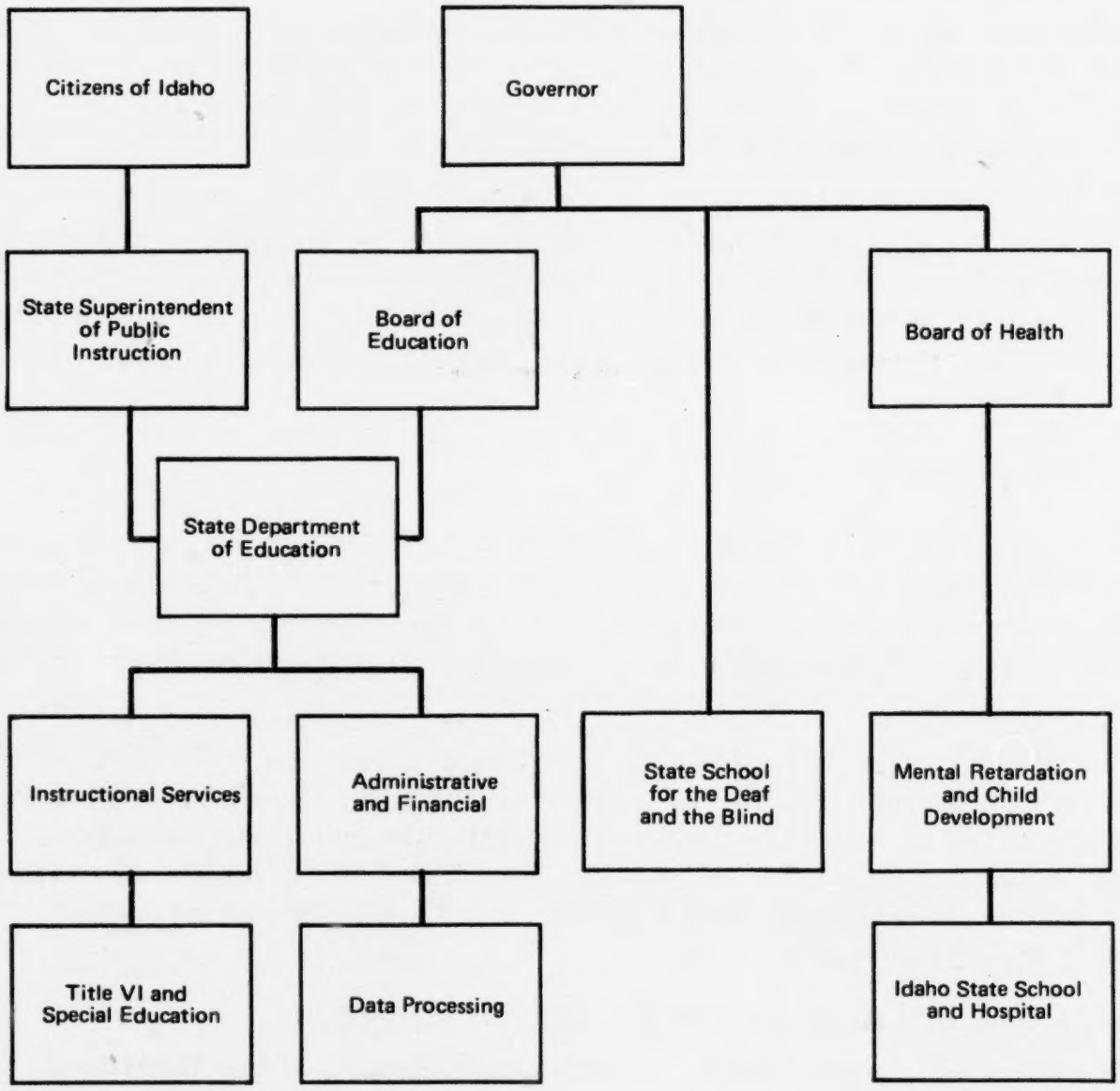

FIGURE 1. RESPONSIBILITIES FOR EDUCATION OF HANDICAPPED CHILDREN IN IDAHO

TABLE 1

PUBLIC SPECIAL EDUCATION PROGRAMS

Handicapping Condition	Type of Program		
	Full Time or Almost Full Time (Standard)	Itinerant	Residential (State Institution)
Mentally Retarded	X		X
Non-sensory	X*		
Special Learning Disability	X*		
Hard of Hearing		X**	
Speech		X	
Deaf			X
Blind			X

* Only 2 or 3 classed in some cities.
** Restricted to 2 or 3 areas of the state.

State Department of Education
Room 206, Statehouse
Boise, Idaho 83707

ENROLLMENT IN STATE APPROVED
SPECIAL EDUCATION CLASSES

SDE-408-568

District Name _____ No. _____ Name of School _____ Address _____ Zip _____ Telephone _____

Name of Teacher _____ Type of Certification: ____Standard Elementary, ____Standard Secondary, ____Interim Exceptional Child,

____Standard Exceptional Child, ____Other (describe) _____

Type of Program: ____Mildly Retarded (educable), ____Moderately Retarded (trainable) ____Other (specify) _____

Pupil's Name Last First	PSYCHOLOGICAL INFORMATION						MEDICAL INFORMATION		ENROLLMENT INFO. For Current Year		
	C.A.	M.A.	I.Q.	Name of Tests	Date of Test	Name of Approved Tester	Date Last Medical Exam.	RESULTS LAST MEDICAL EXAMINATION Describe any handicap or impairment reported. Examples: visual impairment hearing loss, speech defect, etc.*	Date Enr.	Date Drop	School Dist. of Res.
1.											
2.											
3.											
4.											
5.											
6.											
7.											
8.											
9.											
10.											
11.											
12.											

(REPRODUCED FROM STATE FORM)

- See Directions Reverse Side -

*Describe on back of form if necessary

Superintendent Date

FIGURE 2. ENROLLMENT IN STATE APPROVED SPECIAL EDUCATION CLASSES, FORM SDE-408-568

The first form, SDE-408-568, is filled out in triplicate by the district superintendent's office (by October 15) at the start of each school year. A separate form is required for each non-itinerant class in the district. Included are a class count and each student's name, age, and impairment, and provision for enrollment and dropout date. Of the two copies sent to the special education department, one is returned to the district in May to be updated by indicating the students who dropped out during the year and by adding additional enrollees. The updated form is resubmitted by June 1.

This form provides all of the required public school non-itinerant enrollment data in that age and handicap condition are recorded. The type of educational program is also identified because the form is used only for the standard type of classes (including all full time or almost full time classes). However the data should be summarized by individual year of age. Suggestions for summarizing these and other data are discussed subsequently in this report.

The other form, "Speech and Hearing Report," Form SDE 1968, is used to report on public itinerant special education programs concerning speech and hard-of-hearing handicaps. It is prepared by the speech and hearing therapist and signed by the district superintendent at the end of the school year. Included are the numbers of children tested (year total) and served (weekly and year total). A waiting list which does not distinguish between speech and hearing problems is broken down by grades and by speech or hearing handicap. The elementary grade levels can probably be nominally converted to age levels (first grade, age 6; second grade, age 7; etc.). However no provision is made for an age break out of the "Special Education" category or the high school grades. There is space on the form for providing this information, however, and a possible modification is suggested in Figure 4.

Enrollment reports from the state operated schools and the two or three private agencies could be submitted on Form SDE-408-568, if communication procedures permit, or transmitted by letter.

Waiting List. Aside from the waiting list prepared by the speech therapists (which may be incomplete since only a small fraction of the school-age population is tested), there is no official waiting list for any handicap in any public school district. Official testing does not occur until class space is available. In general, then, those Idaho children positively identified as needing special education are already enrolled, except for the speech and hearing handicapped.

The special education director has initiated a statewide triennial survey of all public elementary and secondary classes to establish need for special education services. The source document is a one-page form consisting of a series of identical rows of codes, which represent characteristics that are associated with handicap problems. One or more of these codes may be applied to a particular student whose name and birth date are written on the row "describing" him. The 26 codes and the characteristics which they represent, such as "speaks in a manner making it difficult to understand him" and "does not hear adequately" are listed on a separate sheet. The forms entitled, "Survey of

Complete the following by inserting number of Speech and Hearing Categories

RECEIVED THERAPY IN 1968-69 SCHOOL YEAR

BREAKDOWN BY GRADES

	SPEECH	HEARING
First Grade		
Second Grade		
Third Grade		
Fourth Grade		
Fifth Grade		
Sixth Grade		
Seventh Grade		
Eighth Grade		
Special Education		
High School		
TOTALS		

BREAKDOWN BY DISORDERS

Articulation	
Stuttering	
HOH or Deaf	
Cleft Palate	
Cerebral Palsy	
Voice Problems	
Other (Specify)	
TOTALS	

(REPRODUCED FROM STATE FORM)

FIGURE 3. REVERSE SIDE OF FORM SDE 1968, SPEECH AND HEARING REPORT

Complete the following by inserting number of Speech and Hearing Categories

BREAKDOWNS BY GRADES

GRADE	SPEECH		HEARING	
	Received Therapy	Newly Diagnosed	Received Therapy	Newly Diagnosed
First				
Second				
Third				
Fourth				
Fifth				
Sixth				
Seventh				
Eighth				
1st Yr. High				
2nd Yr. High				
3rd Yr. High				
4th Yr. High				
TOTALS				

BREAKDOWN BY DISORDERS	AGE BREAKDOWN OF SPECIAL EDUCATION									
	Age	Speech		Hearing		Age	Speech		Hearing	
		R.T.	N.D.	R.T.	N.D.		R.T.	N.D.	R.T.	N.D.
Articulation										
Stuttering										
HOH or Deaf										
Cleft Palate										
Cerebral Palsy										
Voice Problems										
Other (Specify)										
TOTALS	R.T. = Received Therapy N.D. = Newly Diagnosed					TOTALS				

FIGURE 4. FORM SDE 1968 MODIFICATION FOR RECORDING INDIVIDUAL YEAR OF AGE

Exceptional Children," and subtitled, "Teachers Direction Form A" and "Teachers Reporting Form B," are shown in Section X, pp. D12-22 and D12-23, respectively This procedure was instituted and used for the first time in the 1968-69 school year. The staff will use the intervening two years between surveys to statistically update the survey and improve the quality of the data.

The information obtained from this survey is recognized as referral data prepared by regular classroom teachers who are not necessarily qualified to accurately diagnose handicapping conditions. However, because the teachers were asked only to identify characteristics and not "label" the students, it is believed by the state staff that the survey will result in an unbiased count of children potentially requiring special education services. The survey indicates the areas in which testing is greatly needed, but until such time as diagnostic services can become more available to validate the ratio between these "referrals" and actual diagnosed identifications, national prevalence rates will have to be used as a basis for estimating Idaho's unserved handicapped child population.'

Using prevalence rates is an interim method of estimating the total handicapped child population. These rates are a starting point for such an estimation, but to be useful in the long run, not only for applying the model but for other state planning purposes, they should be validated with actual data. Such validation can be done by collecting appropriate data and making successive approximations. Later documents pertaining to this project will contain more detailed descriptions of alternative methods of validating these rates.

Number of Children Moving Into/Out of Identified Handicapped Child Population

The movement of children within the handicapped child population needs to be traced to determine the effects of annual incidence, transfer, and attrition on the service required. Currently no data is collected or accumulated which will provide the necessary information.

Newly Diagnosed. The purpose of obtaining information pertaining to children newly diagnosed in a year is to develop some information on the annual incidence rates. Where diagnosis and identification are limited to the capability to serve, as in Idaho, a count of new enrollments in special education programs is equivalent to a count of the newly diagnosed. However, this is a minimal condition and provision should be made for collecting newly diagnosed data pending the time when diagnosis is less restricted by service capability, funds, or availability of qualified personnel.

Under the present circumstances of new enrollments' being basically the newly diagnosed, a count of the newly diagnosed can be obtained from the current year enrollment data on Form SDE-408-568 for "standard" classes. For handicap conditions served by itinerant services, Form SDE 1968 could be used, if modified on the reverse side as shown in Figure 3. The columns headed "Newly Diagnosed" would be used to enter total newly diagnosed for that reporting year. This includes those added to the waiting list but does not include transfers from other teachers, other schools, or other districts within the state.

Intrastate Transfers. Transfers within the state of children receiving special education services, while they are, in effect, an attrition from the specific program in which the child was enrolled, do not change the state's total handicapped child populations and should be accounted separately. This will prevent the counting of a transfer from one LEA as a new enrollee in another LEA, thus creating an error in annual incidence count. The format for accounting for those transfers is included in the following paragraphs on "Attritions". An analysis of transfers could also reveal the trend of movement according to the quality of special education services offered by various localities.

Attritions. Attritions and intrastate transfers out of an LEA constitute the deductions from the handicapped child population of an LEA. Accounting for intrastate transfers and attrition for children enrolled in "standard" programs can be accomplished through the addition of a subcolumn entitled "Enrollment Status" under the existing "Enrollment Information" heading, and the application of enrollment and attrition codes similar to those contained in Table 2.

Accounting for these data elements on itinerant programs will require an additional form for these programs similar to that shown in Figure 5. The attrition causes are cited only as examples. The state could, of course, apply those reasons which would best serve their analytical requirements.

The format shown in Figure 5 can be used by the classroom teacher to summarize the enrollment and attrition data individually recorded on Form SDE-408-568. This would greatly assist the state Office of Special Education in the aggregation of data.

General Child Population Projections

Forward projections of general child populations by individual year and by single year of age is a model data element requirement. These are the values that validated incidence rates will be applied to in the projection of the handicapped child population. To the knowledge of the special education staff, supported by inquiry within the state government and state university, no group has been either required or requested to provide data on population projections.

Enrollment Trends

The Manpower Requirements Projection Model has the capability of simulating manpower requirements on the basis of selected variations of input data. Two such data elements are educational program mix trends and personnel/pupil contact ratios. A simulated change in the education program mix (for example, returning blind and deaf children to regular classes supplemented by resource room work instead of special classes) can be analyzed for its effect on manpower requirements. A proposed change in teaching technology that could affect the teacher/pupil contact ratio can be simulated to determine its effect on manpower requirements.

The scarcity of districts with special education programs and the paucity of programs in these districts is not conducive to the accumulation of meaningful historical data. As a result, the experience of the Special Education staff will have to be relied upon for enrollment trend data.

TABLE 2

ENROLLMENT STATUS CODES

SPECIAL EDUCATION ENROLLMENT CODES

Continuing in program from previous year	C
New enrollee (first time in program, or interstate transfer)	E1
Transfer from another class within LEA	E2
Intrastate transfer (transfer from another LEA)	E3

SPECIAL EDUCATION ATTRITION CODES

Pupil returned to regular education procedures	A1
Transfer to another special education class within LEA	A2
Transfer to another LEA	A3
Mortality	A4
Left special education programs for other reasons (Dropout, graduation, move out of state, etc.)	A5

Date	Local Education Agency
Handicap Condition	Location

Special Education Program Type Code _____

Enrollment Category	Age																Total
	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
Continue in Program From Last Year																	
New Enrollee or Interstate Transfer																	
Intrastate Transfer From Another LEA																	
Total																	

Attrition Categories	Age																Total
	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
Returned to Regular Education Procedure																	
Intrastate Transfer to Another LEA																	
Mortality																	
Moved out of State																	
Other (Dropout, Graduation, etc.)																	
Total																	

FIGURE 5. SPECIAL EDUCATION ENROLLMENT AND ATTRITION SUMMARY REPORT

Personnel/Pupil Contact Ratios

Teacher/pupil ratios are controlled by the state education department and are described in departmental guidelines.

Number and Type of Special Educators Employed

The determination of special education manpower gap (the difference between projected requirements and present staff) requires the aggregation of data pertaining to the number of qualified special education personnel currently employed and their occupational specialty (teacher of the blind, teacher of the mentally retarded, speech and hearing therapist, etc.).

For the "standard" state approved special education classes and the speech and hearing itinerant programs, this information is obtainable from Forms SDE-408-568 and SDE 1968, respectively. Similar information should not be too difficult to obtain from state operated schools and institutions and from the few private special education schools.

V. PROCESSING POTENTIAL

Hardware

Currently the Department of Education shares an IBM 1401 with Boise State College. While FORTRAN capability exists, the storage capabity is far too small to permit implementation of the projection model. However, the department may, if it wishes, request time on the IBM 360/40 at the University of Idaho or the IBM pp30 at Idaho State University. In addition, the department has access on staff/time and machine/time purchase basis to a Univac 494 computer having a 64K word capacity. In addition to the computer, a collater, interpreter, and reproducer are available for unit records, as are keypunch facilities.

Personnel

The Special Education staff is more than adequate to handle all aspects of the Manpower Requirements Projection Model, and the Data Processing Section can competently prepare and operate the required programs.

Acceptance of Model Concept

The special education staff feels that use of the model at this time is premature. However, the additional data acquired to prepare for model application would be useful for planning purposes. Little additional effort would be required to obtain the required data and no obstacle is seen to actually applying the model when circumstances in Idaho warrant the need for more precise and detailed planning data.

VI. ADDITIONAL FACTORS

Currently, about 22 percent of the need for special services is being met, based on the current school age population estimate, the current enrollment, and federal prevalence rates. Not taken into account are the Indian

population and the deviation from federal average rates of Idaho's "true" rates, which are presumed to be higher in several categories. In addition, the "easiest" group to service, persons needing speech correction, comprises 4/7 of those receiving services.

If the rate of expansion of special education programs, the rate of population increase, budgetary levels, and the difficulty of attracting qualified personnel continue at their present rates, another 15 years might be required to place Idaho Special Education in a position where the model capabilities could materially assist in planning manpower requirements.

VII. RECOMMENDATIONS

Special Education in Idaho encounters many problems in its efforts to provide educational services to its handicapped child population. The wide dispersion of the sparse population over a large geographical area contributes to the difficulty of establishing concentrated special education programs. This, along with the state's remote location in relation to large population centers, adds to the difficulty of attracting qualified special education personnel to the state.

Because the known manpower shortage so far exceeds any near future resolution, the application of the Manpower Requirements Projection Model to prepare a forecast of manpower requirements would probably not be of any analytical value at this time. This does not, however, deny the need for additional information that would assist in the administration of the state's special education programs. The procedures for providing this information, if developed now, would also provide the data elements necessary to the future application of the model.

The following recommendations would, upon implementation, provide for the information flow of data elements that would improve the quality and quantity of information available for special education program management and also provide the basic data necessary for the application of the Manpower Requirements Projection Model.

a. The data collection forms, SDE-408-568 and SDE 1968, while they do not presently provide for the collection of all the data elements discussed in this report, do serve as a good basis for the moderate expansion to be recommended. They represent an information link between the classroom, the local school district, and the state Special Education staff. Recommendations pertinent to the use or modification of these forms are:

   1. Modify the two forms as required so as to facilitate the collection of:

      a. Enrollment data by single year of age. Form SDE-408-568 presently provides for the recording of this data. Form SDE 1968

would require the conversion of grade level to age level and the modification suggested for the high school levels and also for special education classes. The special education age breakdown modification is suggested because the present form makes no provision for converting special education to "grade level", probably because there is no valid correlation between age and grade for certain handicapping conditions.

b. Enrollment status data, including newly diagnosed, intrastate transfers, and attritions can be collected by making the suggested modifications to the forms. Form SDE-408-568 requires the addition of an "Enrollment Status" sub-column and the application of the enrollment and and attrition codes similar to those contained in Table 2.

c. Newly diagnosed data for itinerant special education programs could be recorded on the modified Form 1968, shown in Figure 4.

b. Enrollment, intrastate transfer, and attrition data for state approved special education classes and itinerant programs can be summarized by the teacher or therapist on a form similar to that shown in Figure 5. This will ease the data aggregation burden of the state special education staff.

c. State agencies should be queried for the availability of statistics that can be used as a basis for preparing projection of the general child population by year of age for a period of years forward. Aside from its requirement as a data element for the model, such a projection should be useful in the planning of regular educational programs for future years.

d. The determination of the unserved child population is dependent upon the application of current prevalence rates. Although the use of unvalidated prevalence rates (especially those of national or obsolete origin) is a convenient means of "guesstimating" the theoretical service requirements, even the "ball park" accuracy is questionable. The prevalence rates currently used in

Idaho should be reviewed in the light of current knowledge; and procedures should be initiated for validating prevalence rates.

The establishment of waiting list information is necessary to the future determination of the level of participation, i.e., the amount of service being supplied to the number of children identified as needing it. Obviously, if children are diagnosed and identified as handicapped children only when the required service is available, there is no backlog, no waiting list, and a lower incentive for planning and funding the expansion necessary to service those children awaiting diagnosis.

If the present regulations pertaining to education of handicapped children mandate that a child identified as handicapped must be provided with special education services, this tends to restrict diagnosis beyond the capability to enroll. It is recommended that a procedure be adopted which will permit the reporting of the results of a diagnosis effort without committing the LEA to providing special education services.

e. The Department of Special Education has not used automated data processing (ADP) techniques (with the exception of the Survey of Exceptional Children) for the collection, storage, or reporting of its data, although a facility for providing such service is available. Although the volume of data currently processed by the Special Education staff is adaptable to manual aggregation, this process will become increasingly difficult as the state's special education programs expand and the number of data elements increases. Conversion to an ADP system for processing the data is strongly recommended.

VIII. RESOURCE REQUIREMENTS—MANPOWER

Although application of the Manpower Requirements Projection Model has not been recommended in the immediate future, it has been suggested that special education information be automated. The manpower to design an information flow, evaluate data elements, determine data sources, design or modify reporting forms, prepare input data, write computer programs, and design output formats is not available in the present Special Education staff. Such assistance would have to be provided by an outside source, perhaps the staff of the Data Processing Center. It is estimated that the manpower requirement to implement the system would be 1 1/2 man-months of special education staff effort, 1 1/2 man-months of systems analyst time, and 1 man-month for programming over a 12 to 18 month time period.

Maintenance of the system (coordination of inputs, quality control, improvements, preparation of special reports, etc.) will probably require about 3/4 man-month per year of combined effort.

Application of the model, once the data elements are available, will require very little manpower or machine time.

IX. PERSONS INTERVIEWED

The persons interviewed by the ORI (Leasco) representative, Mr. Ted Jungreis, during the week of September 15, 1969 were:

Dr. Raymond Lehrman	Director, Special Education Department
Tom Brown	Consultant, Special Education Department
Allen Jeffries	Statistical Director, Department of Education
Dr. John Cambareri	Director, Comprehensive Health Planning Section, Department of Health
Lee Eisenbarth	Director, Special Education and Vocational Training, Idaho State School and Hospital
Paul Bird	Assistant Superintendent, Idaho State School for the Deaf and the Blind
F. Weeks	Director of Education, State Youth Training Center

X. CURRENT REPORT FORMATS

Additional reporting formats used in Idaho are listed below and reproduced in the following pages.

Form SDE 1968 (front side)	Speech and Hearing Report 1968-69
	Survey of Exceptional Children Forms
SDE-408-169	• Teacher's Direction Form A
SDE-108-368	• Teacher's Reporting Form B

STATE DEPARTMENT OF EDUCATION
STATEHOUSE
BOISE, IDAHO 83707

SPEECH AND HEARING
REPORT
1968-1969

DATE _____

School District(Name & No.) _____ Address: _____ Zip Code: _____ Telephone _____

Name of Therapist _____ Type of Certificate Held: _____

Schools Served		EVALUATION		CASELOAD FOR EACH SCHOOL				
Name of School	Dist. No.	Number of Children Tested During Year		Cases Served by Therapist				Number of Children Tested & Recommended For Therapy But Not Served (Waiting List)
				Per Week		Per Year(total served)		
		SPEECH	HEARING	SPEECH	HEARING	SPEECH	HEARING	
TOTALS								

(REPRODUCED FROM STATE FORM)

312

SDE 1968 (Please retain pink copy in District Office). (SEE REVERSE SIDE)

BY: _____
Superintendent

STATE OF IDAHO
DEPARTMENT OF EDUCATION
STATEHOUSE, BOISE, IDAHO 83707

SURVEY OF
EXCEPTIONAL CHILDREN

D. F. ENGELKING
State Superintendent of Public Instruction
SDE-408-169

TEACHER'S DIRECTION FORM A

DIRECTIONS: This page contains a list of Descriptive Items. Each item describes one certain condition or behavior pattern which an exceptional child may have. Each Descriptive Item is assigned an Item Letter for identification. The Item Letter is listed to the left of each Item.

The purpose of this TEACHER'S DIRECTIONS FORM is to help you identify pupils in your classroom whom you believe to be exceptional children who may need special education in order to benefit from the educational program offered by the school. As you read each Descriptive Item, determine whether it describes the condition or behavior of any child in your classroom. You may need to refer to pupil records, the nurse, psychologist or other staff members for information.

If the Descriptive Item does fit or describe a pupil, print the pupil's name, grade, and the other information requested on TEACHER'S REPORTING FORM B in the correct spaces. To the right of the pupil's name, grade, etc., circle the Item Letter or Letters which describe him, as instructed in REPORTING FORM B.

Item Letter

DESCRIPTIVE ITEM--HEARING

A---Wears a hearing aid or has been diagnosed as hard of hearing accordi[illegible]al or pupil records.
B---Does not hear adequately. Asks to have words repeated; is [illegible] attentive; complains of ear aches or head noises; at times discha[illegible].
C---Seems to daydream frequently. Gives strange answe[illegible] to do one thing does another. Cocks head to listen or watches tea[illegible] intensity.
D---Any other reason why child should be repo[illegible]ng.

DESCRIPTIVE ITEM--SP[illegible]

E---Has been diagnosed as having a spee[illegible] according to pupil records and shows in speaking that the problem is still [illegible]t.
F---Speaks in a manner making it difficult for others to understand him or speaks so differently from other children that he is self-conscious about his way of speaking.
G---Any other reason why child should be reported under Speech.

DESCRIPTIVE ITEM--VISION

H---Has vision of 20/70 or less in best eye after all medical or optical help has been given, or has been diagnosed as suffering from a disease of eye or body which seriously affects vision, according to medical or pupil records.
I---Cannot read the regular-sized print on materials read by the rest of the class because of faulty eyesight, or must hold print very close to the eyes to read.
J---Any other reason why child should be reported under Vision.

DESCRIPTIVE ITEM--PHYSICAL PROBLEMS

K---Attends school in wheelchair or similar appliance, or wears braces, crutches, or other appliance because of impairment in running, walking, standing, or sitting.
L---Has been diagnosed as cardiac, diabetic, asthmatic, arthritic, epileptic, or crippling or health-impairing condition, according to medical or pupil records.
M---Has been diagnosed as cerebral palsied, or brain damaged, according to medical or pupil records.
N---Any other reason why pupil should be reported under Physical Problems.

DESCRIPTIVE ITEM--BEHAVIOR DISORDERS

O---Exhibits aggressive misbehavior in classroom or on playground which interferes with instruction or safety and welfare of other pupils.
P---Is withdrawn, anxious, or tense to a remarkably noticeable, restricting degree.
Q---Any other reason why child should be reported under Behavior Disorders.

DESCRIPTIVE ITEM--LEARNING DIFFICULTIES

R---Has failed to be promoted or been socially promoted two or more times.
S---Reads three or more grades below present grade placement.
T---Has a recorded IQ of 51 to 80 on an individual test of intelligence(WISC or BINET)
U---Has a recorded IQ of 50 or less-than-50 on an individual intelligence test(WISC or BINET)
V---Any other reason why pupil should be reported under Learning Difficulties.

DESCRIPTIVE ITEM--ACADEMICALLY TALENTED

W---Reads with understanding two or more grades above present grade placement.
X---Has a recorded IQ of 130 or higher on an individual intelligence test(WISC or BINET)
Y---Scores at or above 95th percentile in an individual or group achievement test battery.
Z---Any other reason why child should be reported under Academically Talented.

(REPRODUCED FROM STATE FORM)

STATE OF IDAHO
DEPARTMENT OF EDUCATION
STATEHOUSE
BOISE, IDAHO 83707

D. F. ENGELKING
State Superintendent of
Public Instruction
SDE-408-368

SURVEY OF EXCEPTIONAL CHILDREN

TEACHER'S REPORTING FORM B

Return to: District superintendent or principal within one week of your receipt of form. Please return this Teacher's Reporting Form B even if you have no pupils who should be listed below.

Instructions: Study carefully each Descriptive Item on TEACHER'S DIRECTIONS FORM A. If you recognize a pupil in your classroom who fits or matches the description in a particular Descriptive Item, then print the pupil's name in the space below.

For each pupil you list, complete the blanks by reporting his grade, birth date, and sex. If you teach a special education class, enter "S" in the column headed "Grade."

For each pupil reported on this form, circle the Item Letter which describes him. If necessary, circle more than one Item Letter to describe the child's problems. If you circled D, J, N, Q, V, or Z for any pupil (any other reason why child should be reported), write that pupil's name **also on the back** of this Teacher's Reporting Form B and explain the child's problem in the space provided for this purpose.

Signature: These spaces are for your signature, the date you complete this form, and the total number in your classroom. Please fill in:

X _____ TEACHER'S SIGNATURE _____ MONTH DAY _____ NUMBER OF ... IN MY CLASSROOM

(REPRODUCED FROM STATE FORM)

TEACHER'S NAME			
SUDERLING	P J		
COUNTY NO.	DISTRICT NO.	BUILDING NO.	SOCIAL SECURITY NO.
2.	271	300	337+38+3[illegible]

PLEASE PRINT PUPIL'S NAME FIRST NAME	LAST NAME	GRADE	BIRTHDATE MO	YR	SEX M or F	DESCRIPTIVE ITEM (S) FITTING PUPIL LISTED AT LEFT (CIRCLE THOSE APPLICABLE)
1						A B C D E F G H I J K L M N O P Q R S T U V W X Y Z
2						A B C D E F G H I J K L M N O P Q R S T U V W X Y Z
3						A B C D E F G H I J K L M N O P Q R S T U V W X Y Z
4						A B C D E F G H I J K L M N O P Q R S T U V W X Y Z
5						A B C D E F G H I J K L M N O P Q R S T U V W X Y Z
6						A B C D E F G H I J K L M N O P Q R S T U V W X Y Z
7						A B C D E F G H I J K L M N O P Q R S T U V W X Y Z
8						A B C D E F G H I J K L M N O P Q R S T U V W X Y Z
9						A B C D E F G H I J K L M N O P Q R S T U V W X Y Z
10						A B C D E F G H I J K L M N O P Q R S T U V W X Y Z
11						A B C D E F G H I J K L M N O P Q R S T U V W X Y Z
12						A B C D E F G H I J K L M N O P Q R S T U V W X Y Z
13						A B C D E F G H I J K L M N O P Q R S T U V W X Y Z
14						A B C D E F G H I J K L M N O P Q R S T U V W X Y Z
15						A B C D E F G H I J K L M N O P Q R S T U V W X Y Z
16						A B C D E F G H I J K L M N O P Q R S T U V W X Y Z
17						A B C D E F G H I J K L M N O P Q R S T U V W X Y Z
18						A B C D E F G H I J K L M N O P Q R S T U V W X Y Z
19						A B C D E F G H I J K L M N O P Q R S T U V W X Y Z
20						A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

INSTRUCTIONS FOR REPORTING A CHILD UNDER THE HEADING "Any other reason why child should be reported."

If you listed a child's name on the front side of this page under the Descriptive Item of "Any other reason ", please write the child's name again on this side, and explain your reasons or evidence for listing the child as in need of special help. Use the form below.

Child's Name _____ Descriptive Item on Reverse Side _____

Explanation of Child's problem: _____

_____

_____

_____

_____

Child's Name _____ Descriptive Item on Reverse Side _____

Explanation of Child's Problem: _____

_____

_____

_____

Child's Name _____ Descriptive Item on Reverse Side _____

Explanation of Child's Problem: _____

_____

_____

_____

_____

Child's Name _____ Descriptive Item on Reverse Side _____

Explanation of Child's Problem: _____

_____

_____

_____

D12-23

TABLE 3
SUMMARY OF DATA DEVELOPMENT STATUS
IDAHO

DATA ELEMENTS			PUBLIC SCHOOLS: CURRENT STATUS	PUBLIC SCHOOLS: METHOD OF DEVELOPMENT	PUBLIC SCHOOLS: SOURCE OF DATA	OTHER STATE AGENCIES AND INSTITUTIONS: CURRENT STATUS	OTHER STATE AGENCIES AND INSTITUTIONS: METHOD OF DEVELOPMENT	OTHER STATE AGENCIES AND INSTITUTIONS: SOURCE OF DATA	PRIVATE SCHOOL DATA
NUMBER OF CHILDREN IDENTIFIED AS NEEDING SPECIAL EDUCATION	ENROLLED	AGE	Available for "standard" programs not directly available for itinerant programs	Modify data collection forms and summarize data	Classroom teacher or therapist	Available	Use public school reporting formats	Individual school	Available on voluntary basis from individual schools. Use public school reporting formats.
		HANDICAPPING CONDITION							
		EDUCATION PROGRAM							
	ON WAITING LIST	AGE	Partially available for itinerant speech and hearing programs	No near future method. Use national prevalence rates	National prevalence rates	Availability unknown	—	—	
		HANDICAPPING CONDITION							
NUMBER OF CHILDREN MOVING INTO AND OUT OF IDENTIFIED HANDICAPPED CHILD POPULATION	NEWLY DIAGNOSED AS NEEDING SPECIAL EDUCATION	AGE	Available for "standard" programs	Recycle of enrollment form at end of year and summarize	Classroom teacher or therapist	Available	Use public school reporting formats	Individual school	
		HANDICAPPING CONDITION							
	INTRA-STATE TRANSFERS	AGE	Not available	Modify enrollment reporting formats		Availability unknown			
		HANDICAPPING CONDITION							
	ATTRITION FROM THE IDENTIFIED HANDICAPPED POPULATION	AGE	Available but not by reason	Modify enrollment format and recycle as presently done		Available			
		HANDICAPPING CONDITION							
		REASON							
YEARLY PROJECTIONS OF THE CHILD POPULATION, BY AGE			Not available	Utilize existing statistics, if available	Department of Education, Finance, etc.				
DATA USED TO SIMULATE SPECIAL EDUCATION	EDUCATION PROGRAM MIX TRENDS		Not available	Utilize Special Education staff experience	Special Education				
	TYPES OF PERSONNEL AND PERSONNEL/PUPIL CONTACT RATIOS	TARGET GROUP	Available	—	Department of Special Education	Available	—	Individual school	Available
		EDUCATION PROGRAM							
OPTIONAL: NUMBER OF SPECIAL EDUCATION PERSONNEL EMPLOYED, BY TYPE			Basic data available	Aggregate teacher data from enrollment forms			Report to Special Education	Individual school	Available from individual school

ILLINOIS STATE ANALYSIS REPORT

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The research reported herein was performed pursuant to Contract No. OEC 0-9-08928-0710 with the Bureau of Education for the Handicapped, Office of Education, U.S. Department of Health, Education, and Welfare. Contractors undertaking such projects under Government sponsorship are encouraged to express freely their professional judgment in the conduct of the project. The points of view or opinions stated do not, therefore, necessarily represent official Bureau position or policy.

ILLINOIS STATE ANALYSIS REPORT

I. INTRODUCTION

Sponsored by the Bureau of Education for the Handicapped (BEH), Operations Research, Inc. (ORI) has developed a mathematical model that provides the framework for systematic consideration and evaluation of major elements contributing to the determination of special education manpower needs. The model has been designed for application by state special education agencies and, when fully implemented, will assist each state in the systematic prediction of its own special education manpower needs, based upon individual state educational characteristics. The model will simulate present and future manpower needs under varying assumptions regarding changes in personnel/pupil contact ratios, the educational program mixes, the child participation rate, or any combination of these variables.

Following development of the Manpower Requirements Projection Model, a visit was made to each of the 50 state special education agencies in order to familiarize the states with the objectives of the program and to conduct a survey of current state information flow procedures. The purpose of the survey was to review and analyze the capability and potential for utilization of this model by the state agencies responsible for the education of handicapped children. The survey included an analysis of:

a. The capability of existing information flow processes to provide the necessary model input data

b. The existing automatic data processing capability to process the model program

c. The special education staff capability and desire to utilize the model.

This report presents the findings of the survey in the State of Illinois and contains recommendations pertaining to the establishment of information flow procedures for model utilization as well as to the improvement of general information availability for special education program management. The data development status is summarized in Table 1 at the end of this report.

II. SUMMARY

The Division of Special Education Services, Department of Special Education Program Development and Evaluation (PD&E), receives data each year on programs for handicapped children conducted in each school district in Illinois. Data is reported on classes, rather than on individual pupils. Most data that will be required in using the Manpower Requirements Projection Model will have to be developed by the Department. The Director of the Department of Special Education PD&E is very enthusiastic about the model and its capabilities, and is willing to develop as much new data as possible in order to utilize the model. At the present time, all pupil data is being collected and tabulated manually, as is data on special education personnel in the public schools.

In addition to the public school special education programs, the Department of Mental Health and the Department of Children and Family Services provide special education programs in Illinois.

The Department of Mental Health, Division of Special Education Services, conducts programs in state institutions for mentally retarded and emotionally disturbed children. Much statistical data on enrollments and personnel is collected and published each year in their annual report. While this data is not now in the form needed for model usage, the Chief of the Division stated that much of the data could be made available in the form needed, because data processing is utilized for reporting by their Division, and they are somewhat flexible in terms of how their data can be presented. All information that could be collected on these programs would flow through the Chief of the Division to the Department of Special Education PD&E, where it would be combined with data on other school programs for model usage.

The Department of Children and Family Services, Division of Children's Schools, operates schools for blind, deaf, and physically handicapped children in Illinois. There is little data from these schools at the state level; thus, data must be collected from each of the three schools on an individual basis. The Chief of the Division expressed a willingness to request whatever data is needed in an effort to cooperate with the Department of Special Education PD&E. Here again, all information that can be collected on these programs will flow through the Chief of the Division to the Department of Special Education PD&E, where it will be combined with data on other school programs for model usage.

At the present time, no data on private schools is available at the state level, and the development of a data collection system for these schools would require an extensive effort on the part of the state special education agency. The availability of private school data is therefore not anticipated in the near future.

III. RESPONSIBILITIES FOR SPECIAL EDUCATION

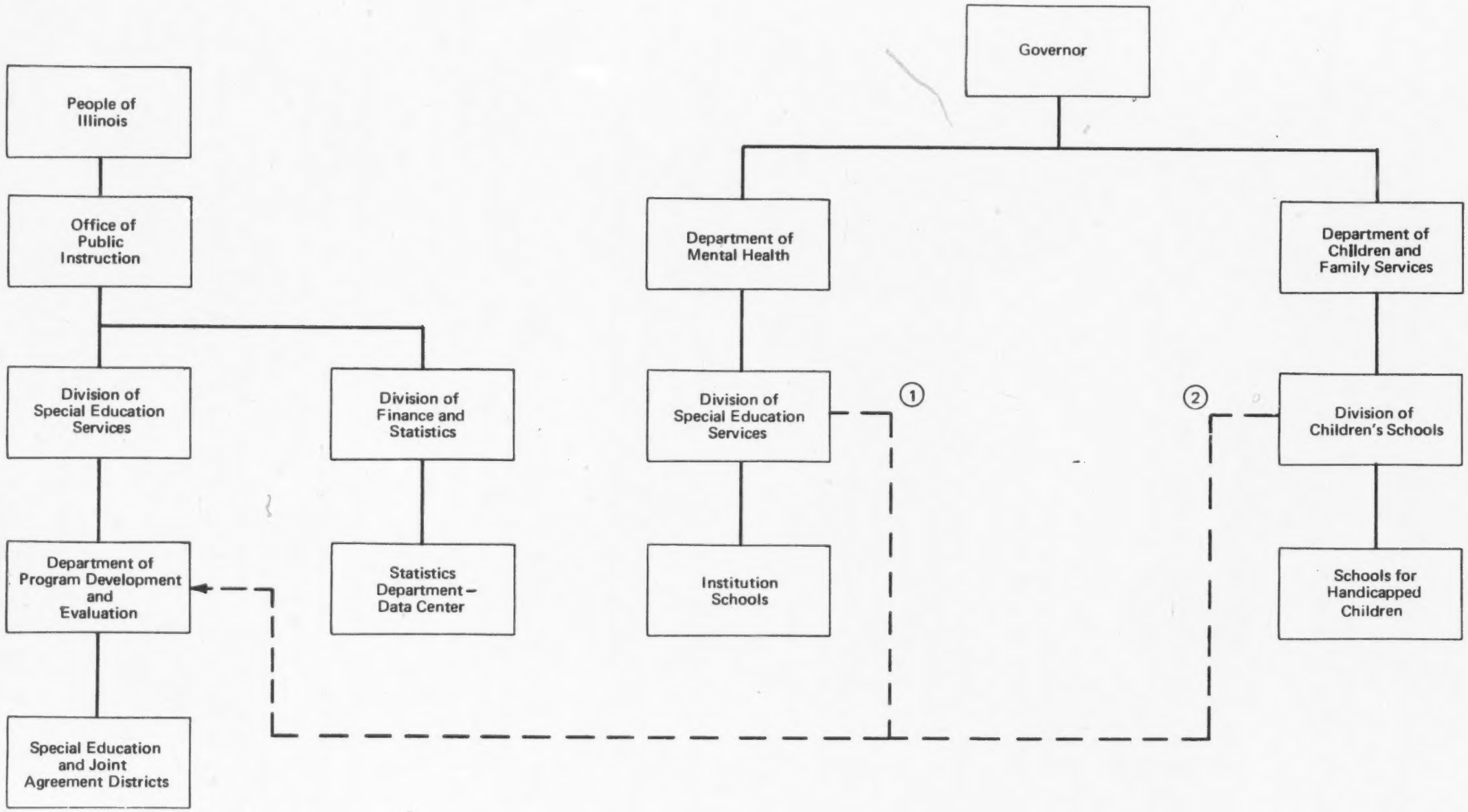
The organization of state agencies responsible for education of handicapped children is illustrated on the informal organization chart on the following page (Figure 1).

All public school education in the State of Illinois is administered by the Office of the Superintendent of Public Instruction. (In Illinois, this Superintendent is elected by the people of the State of Illinois, and is not appointed by the Governor.) As it relates to special education, the Office is responsible for the administration and support of programs in local public school districts, exclusive of state residential and institution schools, and exclusive of private schools for special education. Within the Office of Public Instruction, these public school special education programs are the responsibility of the Assistant Superintendent, Division of Special Education Services. He reports to the Superintendent of Public Instruction through an Associate Superintendent and a Deputy Superintendent. There are 13 Assistant Superintendents and a Comptroller heading up the various Divisions within the Office of Public Instruction.

Within the Division of Special Education Services are seven departments. Direct responsibility for administration and support of special education programs is charged to the Department of Special Education PD&E. The Director of the department reports directly to the Assistant Superintendent of the Division.

Data processing for model implementation will be handled through the Data Center operated by the Statistics Department, under the Assistant Superintendent, Division of Finance and Statistics. This Division is on the same organizational level as the Division of Special Education Services, and arrangements for data processing support may be made between the Assistant Superintendents of the two Divisions.

Responsibility for state institutional programs in special education lies with the Department of Mental Health, Division of Special Education Services. This department is responsible to the Governor of the State of Illinois. The Chief of the Division of Special Education Services is directly responsible for the programs conducted in the institutions run by the department, and he would act as the liaison with the Director of the Department of Special Education PD&E for purposes of providing needed data for model usage.



Notations

1,2 Liaison for Special Education Program Data

FIGURE 1. ORGANIZATION OF STATE AGENCIES PROVIDING SPECIAL EDUCATION PROGRAMS

Responsibility for state residential schools for handicapped children lies with the Department of Children and Family Services, Division of Children's Schools. This department is responsible to the Governor of the State of Illinois. The Chief of the Division of Children's Schools is directly responsible for their operation, and he would act as the liaison with the Director of the Department of Special Education PD&E in providing needed data for model usage.

IV. DATA ELEMENT EVALUATION

Enrollment

At the beginning of the school year, each school district and Joint Agreement district (several districts combined to operate a special education program) submits, through its county Superintendent of Schools, an Application for Conditional Approval of Special Education Programs. This form lists each special education class to be conducted in the district. While it does indicate the handicap served in the class and the type of class, - special class, resource room, or itinerant - it provides only the total number of children enrolled in each class and the age range of those children. It does not identify each child, nor does it provide the age of each child. (A copy of this form is contained in Section X, pages 24, 25, and 26 of this report.)

All special education school districts and Joint Agreement districts employ a Director of Special Education having overall responsibility for the conduct of special education services in the district. This Director could serve as the contact person for data to be forwarded to the state level.

Because the Application for Conditional Approval form currently being used does not provide enrollment data by individual pupil, this needed data could be obtained through the introduction of a new form, one which could be completed at the beginning of each school year by the district Director of Special Education. This form could simply be a matrix chart with rows listing the types of handicaps served in the state (subdivided for Special Class, Resource Room, and Itinerant programs) and columns for single years of age. From pupil records currently maintained at the local level, the district Director could enter the enrollment data for his district, and forward the completed chart to the state level. (An example of a format that might be used in collection of this data is shown on the following page, Figure 2).

One alternative for the collection of data on enrollments in public school special education programs is the modification and expansion of the Application for Conditional Approval of Special Education Programs, submitted at the beginning of each school year by each district conducting a special education program. This form lists each class to be conducted, type of class, handicap served, number of children to be enrolled, and age range of those children. Required here would be the addition of the individual ages of the children in each class reported. However, the size and format of the current form does not lend itself to the addition of this age data. Substantial redesign of the forms would be required, or possibly additional pages to contain the age data for each class could be attached

Header information as needed by state level for identification.

Handicap		Age								
		3	4	5	6	7	8			20
Blind	C									
	R									
	I									
Partially Sighted	C									
	R									
	I									
Deaf	C									
	R									
	I									
Hard of Hearing	C									
	R									
	I									
Etc.	C									
	R									

C: Special Class
R: Resource Room
I: Itinerant
(Other specific program types, e.g., tutoring of homebound or hospitalized, could also be included on form.)

FIGURE 2. SUGGESTED FORM: ENROLLMENTS BY DISTRICT

to the form as it now appears. The amount of effort involved in the expansion of this form must be weighed against the effort required in the field to complete the matrix chart of enrollment for each district, as described above. Because the basic data for either report format would originate at the district Director level, the matrix chart should be considered first for introduction at the time of model implementation, because the needed data would be better organized and easier to tabulate in matrix form. Further, this matrix chart format is consistent with other charts to be proposed (in following paragraphs) for the collection of other data elements required for model usage.

Unserved Child Population

A Quadrennial Census of Handicapped Children is conducted in the state, and the published results of that census indicate, by county, the following:

a. Total pupils receiving special education services in a state reimbursed program

b. Handicapped pupils reported who are not receiving special education services in a state approved program

c. Total pupils reported as handicapped within the county.

All of these counts are reported by handicapping condition, but not by year of age.

County Superintendents have the responsibility for conducting the census, and actual counts have been made for each school district, based upon the judgment of classroom teachers in both public and nonpublic schools. Because identification of handicapped children has been made by regular teachers, Special Education personnel have not placed confidence in the validity of the census counts.

It is anticipated that district Directors of Special Education will be responsible for the conduct of the 1970 census of handicapped. It is further planned that personnel identifying the children will be trained and/or experienced in special education. For these reasons, the 1970 census should provide a much better basis for determining the number of children not yet served in each district. Both handicap type and individual ages will be known for these children at the district level.

In addition to this quadrennial census data, the district Director of Special Education is also in a position to monitor the individual identification of handicapped children during the year. Records of diagnoses and placement are maintained by the district Director, and so the status of each handicapped child in the district should be known.

It is possible, therefore, that data on the number of children diagnosed and awaiting entrance into programs can be collected at the state level in a manner similar to the collection of data on enrollments. Again, a matrix chart listing handicapping conditions and individual ages could be completed by the district Director for each district, and forwarded each year to the state level along with the chart on enrollment (see Figure 3).

Header information as needed by state level for identification.

Handicap	Age				
	3	4	5	6	7
Blind					
Partially Sighted					
Deaf					
Hard of Hearing					
Etc.					

FIGURE 3. SUGGESTED FORM: DIAGNOSED AND WAITING TO BE ENROLLED BY DISTRICT

Because the district Director of Special Education is in a position to monitor the identification of handicapped children, as mentioned above, it is possible that data on the number of children newly diagnosed as handicapped each year could also be recorded by the Director, using a matrix chart which would list handicapping conditions and individual ages for children in this category. Space could also be made available to indicate the number of newly identified children who transfer into the district from other districts within the state where they were already diagnosed and/or enrolled in special education programs. For example, each handicap-age cell on the matrix could be divided to record the number of newly diagnosed on one half, and the number of intra-state transfers on the other half. This chart could be maintained by the district Director during the year, and submitted at the end of the year to the state level. When new children are identified during the summer months, the chart should be submitted at the end of the summer. (See Figure 4.)

Attrition

Data on attrition from special education programs is not now available at the state level. Here again, the Director of Special Education PD&E feels that the district Director of Special Education could be in a position to accumulate attrition data (from both enrollment and waiting lists) for his district, in that he can monitor the status and movement of the handicapped population in the district. Another matrix chart listing handicapping conditions and individual ages could be maintained by the district Director during the year. Each handicap age cell could be segmented into three subsections for the three basic reasons for attrition needed by the model: return to regular education, mortality, attrition for other reasons. (Any other specific reasons for attrition in which the state or district administration were interested could, of course, be added.) This chart could then be submitted to the state level at the end of the year, along with the chart on newly diagnosed and intra-state transfers. Where attritions are known to occur during the summer months, the chart should be submitted at the end of the summer. (See Figure 5.)

In summary, it is possible that all public school data needed at the state level for model support could be provided by the Director of Special Education for each local district. For each element of data needed, a matrix chart, indicating handicapping condition and individual ages of children, could be introduced.

At the beginning of each year, a chart could be completed for

a. The number of children enrolled in special education programs, by program type (class, resource, or itinerant)

b. The number of children diagnosed as needing special education, but not yet enrolled in a program.

Header information as needed by state level for identification.

Handicap		Age						
		3	4	5	6	7		20
Blind	D							
	T							
Partially Sighted	D							
	T							
Deaf	D							
	T							
Hard of Hearing	D							
	T							
Emotionally Disturbed	D							
	T							
Etc.	D							

D: Diagnosed
T: Intra-State Transfer

FIGURE 4. SUGGESTED FORM: NEWLY DIAGNOSED AND INTRA-STATE TRANSFERS

Header information as needed by state level for identification.

Handicap		Age						
		3	4	5	6	7		20
Blind	R							
	M							
	O							
Partially Sighted	R							
	M							
	O							
Deaf	R							
	M							
	O							
Etc.	R							
	M							

R: Return to Regular Education
M: Mortality
O: Other Reasons

FIGURE 5. SUGGESTED FORM: ATTRITION DURING YEAR

At the end of each year, a chart could be completed for

a. The number of children newly diagnosed as needing special education, plus the number of children who transferred into the district from other state districts where they were already diagnosed and/or enrolled in special education programs

b. The number of attritions from special education, by reason for attrition.

General Population Projections

Projections of the general child population in the State of Illinois may be requested from the Department of Educational Research, Division of Planning and Development. A study recently published by this department, entitled "Illinois Public School Enrollment Projections, 1969," contains projections of general enrollment by grade through 1988-90, and projections of birth rates from 1968-72. This study was intended to be used by state agencies for such things as projections of teacher demands, higher education enrollments, etc. No problem is anticipated in obtaining general child population projections, when needed, from Educational Research.

Trends in Enrollment

Data to plot levels of enrollment and identify trends in program enrollment, by educational level and handicapping condition, could be obtained from the Application for Conditional Approval of Special Education Programs, now received at the state level. This would require a review of each form received, in order to extract the number of children who had been enrolled, by handicap and educational level. The suggested matrix format for enrollment, previously described in this section, could also be used to plot enrollment trends. These matrix forms would probably be easier to use, in that the data would be organized by handicap type, and educational levels could easily be subtotaled on the forms.

Personnel/Pupil Contact Ratios

The personnel/pupil contact ratio for each type of handicap served is contained in a handbook published by the Office of Public Instruction, "Rules and Regulations to Govern the Administration and Operation of Special Education." Some variances do occur in ratios from one education level to another and from one program type to another, and these are specified in the handbook.

Personnel

Data on numbers and kinds of special education personnel in public schools is available at the state level on the Application for Conditional Approval forms received each year from each school district providing special education. This form lists the names of special educators, their handicap area, and the portion of day or week employed. While it does not indicate title, degree level, certification, etc., titles can be linked to the handicap area and program type

reported. Total counts of personnel by handicap area are contained in the Special Education Financial and Statistical Report published each fiscal year.

In addition, the Office of Public Instruction obtains a Teacher Service Record from each school district, listing names, certification, degree level, grade level, etc., for all public school personnel. (A copy of this form is contained in Section X, page D13-27, of this report.)

The Director of Special Education PD&E has received printouts of special education personnel, but he is not certain that all handicap areas are covered by these special educators. This situation could probably be improved by requesting printouts by specific special education position codes, which are listed in the Teacher Service Record Instruction Manual. There is no way to identify the handicap areas in which special education personnel are working through the Teacher Service Record. Special Education PD&E could examine the possibility of expanding the current position on assignment codes to include handicaps and/or program areas in which special education personnel could be working.

Data From State Institutional Schools

The Department of Mental Health operates 28 facilities providing special education to mentally retarded and emotionally disturbed (emotionally maladjusted) children. While much statistical data on enrollments is available at the state level (published each year in the annual report, "Summary of Statistical Data for Special Education Services, Fiscal Year"), this data is aggregated into broad age ranges and does not appear by single year of age. The mechanism used by the Department of Mental Health for collection and storage of program data is an ADP information system. While the department does not currently publish enrollment by handicap (within the mentally retarded category, there is no breakdown between EMR and TMR children) or single year of age, the Chief of the Division of Special Education Services stated that this data was in the system, and a printout could be obtained and forwarded to the Department of Special Education PD&E.

Data on the number of children eligible for special education but not yet enrolled is also contained in the current Annual Reports of Special Education Services, though not by single year of age. Again, a printout of this information could be obtained and forwarded along with the enrollment data.

Currently, facilities operated by the Department of Mental Health have waiting lists for children in residence who have not been diagnosed for special education purposes, and for children applying for residence who have not been diagnosed. However, plans exist for a diagnostic procedure which will provide diagnosis for all children within 3 weeks of admission to an institution; the diagnostic waiting lists will therefore be eliminated. Data on incidence could be collected at these facilities by tallying the total number of children, by handicap and age, who are newly diagnosed each year under the planned diagnostic system. (At the beginning of the first year of model usage, an estimate

of the number of children expected to be diagnosed that year by the institutions could be sought. Thereafter, actual diagnostic data could be requested for projections.) The Department of Mental Health is also planning a procedure whereby the school district responsible for each child's education will be identified upon admission of that child to an institution. A count of the number of children who transfer into a Mental Health facility from another special education program in the state could therefore be requested to accompany the count of children newly diagnosed each year. Attrition data for institution programs could also be accumulated each year, based upon the records currently maintained at the facilities.

The forms to be developed for reporting public school data may be provided to the Department of Mental Health to help structure their collection of the needed data. All data collected on these programs would be channeled to the Department of Special Education PD&E through the Chief of the Division of Special Education Services.

Data to plot trends in enrollment in state institutional schools would be available, based upon the enrollment data from these schools. Trends could be identified by the Division of Special Education Services, or they could be identified by the Department of Special Education PD&E, based upon the enrollment data that would be received from the Division.

The Chief of the Division of Special Education Services stated that the special education personnel employed at their facilities did not work within specific personnel/pupil contact ratios, because the nature of the service provided by "special educators" in these facilities differs from that provided in a public school setting. However, for purposes of model application, ratios used in the public school programs could be applied to the Department of Mental Health programs, since these ratios do reflect reasonable teacher needs. Numbers and types of special education personnel are also reported each year in the "Summary of Statistical Data for Special Education Services, Fiscal Year."

Data From State Residential Schools

The Department of Children and Family Services operates three schools for handicapped children: Illinois School for the Deaf; Illinois Braille and Sight Saving School; and Illinois Children's Hospital-School (physically handicapped).

Each of the three residential schools could provide data needed for the Manpower Requirements Projection Model on an individual basis, since detailed information of this nature is not generally maintained at the state level. When specific data is needed, it is usually requested from each school by the Chief of the Division of Children's Schools. Data on the number of children enrolled in programs, as well as the number of children diagnosed and waiting for enrollment, does exist at each school. Data on numbers newly diagnosed each year, intra-state transfers from other special education programs, and attritions could also be collected by the schools on an individual basis, and forwarded to the

state level. The state residential schools could utilize the same formats that would be developed for public school collection of this data.

Each of the three residential programs could respond to the data requirements in the same manner as would the public school programs, except that information from these facilities would be first channeled through the Chief, Division of Children's Schools, at the state level, and he would forward the information to the Department of Special Education PD&E.

Data to plot trends in program enrollment would be available based upon enrollment data from each of the schools. Trends could be identified by either the Division of Children's Schools or by the Department of Special Education PD&E.

Personnel/pupil contact ratios are set by each of the three schools, and information on these would be available upon request. Data on numbers and types of personnel employed at these schools would also be available from each school on a request basis.

Data From Private Schools

No data on private, nonpublic schools is available at the state level (with the exception of the school census of handicapped, which is supposed to include nonpublic local schools). It is possible to identify most of the private schools in the state through directories available from a number of sources, e.g., "Director of Services for Mentally Retarded in Illinois" published by Interdepartmental Committee on Mental Retardation and Illinois Association for Mental Retardation, "A Director of Children's Services" published by the Department of Children and Family Services, which licenses these nonpublic institutions and schools, and "Fall Pupil Enrollment and Teacher Statistics, Independent, Parochial, and Private Schools" published by the Division of Finance and Statistics, Office of Public Insturction. This latter publication reports enrollment and number of teachers by school and by county. It is possible that if nonpublic school data is to be developed in the future, an expansion of this type of survey effort, to include data on private schools for the handicapped, should be examined. Catholic and Lutheran churches may also be contacted in an effort to enlist their cooperation in data development within their school systems. In the absence of formal or legal relationships between nonpublic institutions and the Division of Special Education Services, the development of nonpublic data will require much effort on the part of the Division. At this time, there appears to be a low probability of development of this data.

V. PROCESSING POTENTIAL

Hardware

For the Office of Public Instruction in Illinois, a computer facility is maintained within the Division of Finance and Statistics (Data Center). This Data Center currently houses a Honeywell 200, but present plans include the purchase of a Honeywell 1250, which will effectively double their present capacity. This machine does have a Fortran compiler, and some of the programmers employed by the Data Center have been trained in Fortran, though it is not used a great deal in work now being done by the Center. The Supervisor of the Center does not anticipate any problems in using the Fortran model, however. Priorities for computer usage are determined by the Assistant Superintendents of the Divisions involved.

Personnel

The Data Center employs seven programmers and 14 key-punch operators. In addition, a systems analyst will be assigned to, and be a paid staff member of, the Special Education Division. This analyst would act as a liaison between Special Education and the Data Center in setting up the Projection Model, coordinating the activities associated with running the model, and interpreting the outputs of the model runs for the Special Education staff at state level.

Acceptance of Model Concept

Within the Division of Special Education Services, all personnel contacted were enthusiastic about the model and its application, and were extremely cooperative in discussions concerning information needed for model usage. The Director of the Department of Program Development and Evaluation (he would administer the model) expressed his willingness to develop, as much as possible, the information flow needed to utilize the model. He is very anxious to have the model implemented and operating in the state.

Other state level departments adiminstering public special education programs were also very cooperative in discussing the data needs of the model. The Chief of the Division of Special Education Services within the Department of Mental Health stated that he would be willing to provide whatever data was needed for the model; the Chief of the Division of Children's Schools within the Department of Children and Family Services stated that he would supply whatever information was needed in order to cooperate with the Department of Special Education Services.

VI. ADDITIONAL FACTORS

Effective July 1969, a legal mandate requires the provision of special education to all handicapped children in the state. It is anticipated that this mandate will result in a more concerted effort on the part of state public

education to identify the state's handicapped population and involve these handicapped children in appropriate programs. For example, the school census of handicapped to be taken in 1970 is expected to be the most thorough census taken thusfar in that the personnel who will work in the field to identify the handicapped children will be trained and/or experienced in the area of special education. Identification of these children is expected to be more complete and more accurate than in previous years, resulting in better data for projection purposes.

Title VI funds are now being used in the state to identify 3 to 6-year-old handicapped children, primarily deaf and hard of hearing, who are not enrolled in a school program. These children are being screened, and an attempt is being made to enroll them in a pre-school program for the handicapped. Plans are being formulated to develop this Title VI program into a network of regional diagnostic centers serving all handicaps, all ages. If this is done, more data on the "unserved" child population will be available at the state level for projection purposes.

According to the Guidelines for Special Education Advisory Committees, published by the Office of Public Instruction, "a special education district may be a local district of 15,000 or more school population containing at least one high school and its underlying elements by district.....(it) may be a combination of local districts with the above characteristics. A Joint Agreement may be two or more special education districts who jointly provide (services) for one type of handicapped child where prevalence rates are too low to permit comprehensive services within any one special education district."

Of the 1,234 total districts in Illinois, only 6 are not covered by the administrative structure described above. This suggests very complete coverage of the state in terms of special education availability. Each of the districts described above has now, or will have, a Director of Special Education. Information about all special education matters within his district will "flow through" his office. Special education personnel at the state level are confident that having a contact person such as this district Director at the local level will result in more and better data on the local programs, and will give them a much better "feel" for these programs. Each district Director should be sensitive to the special education needs of his district, and, taken together, these Directors should be in a position to accurately reflect special education needs of the state.

Another factor which must be taken into consideration when examining Illinois special education is the significant role that Cook County plays in the overall organization of programs. A significant proportion of service to handicapped children is provided in the Cook County programs, and some data on programs and special education personnel is maintained by the county, rather than by the state.

Cook County has been divided into 15 sections (cooperatives) for special education; these have been further grouped into four regions (including one for the City of Chicago). Each region has a chairman, and in addition, a steering committee made up of district Directors of Special Education has been formed. The regions and the steering committee report to the Cook County Advisory Committee on Special Education, which is responsible for overall planning and programming of special education in the county.

The Manpower Requirements Projection Model could probably provide useful planning data for an organization as large as that of Cook County. At the same time, it will be important to coordinate the development and implementation of any new special education information retrieval system with this Cook County organization, in order to ensure its usefulness and applicability to the County programs, and to eliminate any duplication of information collection effort within the county organization.

Illinois is one of the states involved in the Midwestern States Educational Information Project (MSEIP). This project has attempted to coordinate state education agencies in 13 midwestern states in the identification of educational information requirements and in the development of information systems to satisfy those requirements. The complete or "ideal" data base that has been developed by the MSEIP contains data elements that would satisfy most projection model input needs.

Because the MSEIP is not yet being implemented in any of the states involved in the project, it cannot be relied upon at this time to provide data needed for projection model utilization. Special Education should coordinate any future systems development effort with the MSEIP in order to avert any possible duplication of effort in this area.

VII. RECOMMENDATIONS

For the collection of data on the number of children enrolled in public school special education programs, a matrix chart reflecting the enrollment of children by program type, handicap type, and individual age could be designed and introduced. As described in the previous Data Element Evaluation section, this form could be completed at the beginning of each year by each district Director of Special Education and forwarded to the state level. A similar matrix chart reflecting the number of children diagnosed but not yet enrolled, by handicap type and individual age, could be designed and introduced to accompany the enrollment chart each year.

An alternative approach to the collection of enrollment data as needed for model application could involve the modification and expansion of the Application for Conditional Approval form now in use. This would involve expanding the form to include individual ages for all handicapped children reported. Space is not available on the current form to do this. Each district submitting a form could attach a list of all children enrolled in all classes, by birthdate or year of age, but this would substantially increase the volume of "paper flow," as well as the data aggregation requirement, at the state level.

The use of the matrix form at the district level would require that the district Director aggregate handicap and age data from classes in his district, based upon information which is readily available to him at that level. These district matrices of aggregated data would be much easier to handle and process at the state level then would the individual pupil data (considering the size of the handicapped population in Illinois). The use of the matrices would, in effect, "spread" the data aggregation and tabulation load between district and state levels.

For the collection of data on the number of children newly identified and diagnosed as needing special education each year (incidence of handicap), a matrix chart reflecting handicap types and single years of age could be designed and introduced. As described in the Data Element Evaluation section, a chart showing the number of children actually diagnosed during the year, and a a count of the handicapped children who transfer into the district from other special education districts in the state during the year could be completed by the district Director and forwarded to the state level at the end of the year.

For the collection of data on attrition in public school programs, a matrix chart reflecting the number leaving special education programs during the year, by reasons for attrition, handicap type, and individual age could be designed and introduced. As previously described, this chart would be completed by each district Director of Special Education and forwarded, along with the incidence chart described above, to the state level at the end of each year.

Projections of the general child population for the state will be requested from the Department of Educational Research within the Division of Planning and Development.

Data on enrollment trends will be available in the future through the data collection system described above. While data to plot enrollment levels currently exists on the Application for Conditional Approval forms now used, it would be somewhat more difficult to extract the needed data from these current forms.

Since data on personnel/pupil contact ratios currently exists for special education programs, no data development is required for this element.

Data on numbers and kinds of public school special education personnel is available at the state level, through the Application for Conditional Approval forms, and also through the Teacher Service Record obtained by the Department of Public Instruction on all personnel. This Teacher Service Record could be made more useful to the Division of Special Education Services by the expansion of position or assignment codes to include handicap areas, or possibly program areas, in which special educators could be working.

In regard to collection of data on the programs operated by the Department of Mental Health (as previously described in the Data Element Evaluation section), data on the number of children enrolled in programs, and the number of children eligible but not yet enrolled in programs, could be available through the present information system (data processing) within the Department of Mental Health. Printouts of these children by handicap type and by age could be available upon request.

Data on incidence of handicap and intra-state transfers into the programs could be collected in much the same manner and use the same forms as the public school data. Attrition data exists at the institution schools, and could likewise be collected on the forms proposed for public school data collection.

Data to plot enrollment trends in institutional programs would be available, based upon the enrollment data that would be collected on these programs.

For projection purposes, personnel/pupil contact ratios for institutional programs would be the same as the ratios used for public school programs.

Numbers and types of personnel employed in institutional programs could be obtained from the Annual Report, published by the Department of Mental Health, covering Special Education Services.

In regard to collection of data on the programs operated by the Department of Children and Family Services (as previously described in the Data Element Evaluation section), each of the three residential schools can provide needed data on an individual basis, coordinated by the Chief of the Division of Children's Schools. This will include data on number of children enrolled, waiting for enrollment, incidence, intra-state transfers, and attrition. These schools could use the procedures and forms to be developed for public school data collection. These procedures and forms would be supplied to the Chief of the Division by Special Education Program Development and Evaluation.

Data to plot enrollment trends in residential programs would be available, based upon the enrollment data that would be collected on these programs.

Data on personnel/pupil contact ratios, and numbers and types of special education personnel, could also be obtained from each residential school on an individual basis.

Development of data on nonpublic schools for the handicapped will be difficult in Illinois in the absence of established links between these schools and state special education. There is a low probability of development of this data.

The Department of Special Education Program Development and Evaluation should seriously consider the use of data processing for the storage and tabulation of all of the data on handicapped children described above. The number of records with which the Department has been working, as well as the number of records described here for data development, would justify the use of data processing in terms of staff time and effort, and in terms of the flexibility of the data analysis that would be gained through the application of data processing.

VIII. RESOURCE REQUIREMENTS — MANPOWER

If matrix forms, as described in previous sections of this report, were to be utilized for the collection of the data elements needed for model application in Illinois, time would be required on the part of a qualified systems analyst working within the Department of Special Education PD&E. Tasks would include design of the data collection formats; development of instructions and procedures for the use of the forms in the field, as well as the handling of the forms at the state level; determination of information flow and interface between

Special Education PD&E and the data processing facility at the state level; some support and "trouble shooting" at the district level, and with the other state level agencies, in order to facilitate the use of the new report forms. A minimum of 2 1/2 man-months of a systems analyst's time, 3 man-months of state staff time, 2 man-weeks for forms design, and 1 man-month for programming, over a period of three years, would probably be required to implement this new reporting system. In addition, on-going maintenance of the information flow and the model itself would require approximately 2 man-months of combined effort per year following model implementation.

IX. PERSONS INTERVIEWED

Mr. David Donald, Director
Department of Special Education Program Development
and Evaluation
Division of Special Education Services
316 South 2nd Street, 3rd Floor
Springfield, Illinois 62706

Mr. James Finley, Assistant Director
Department of Special Education Program
Development and Evaluation
Division of Special Education Services

Mr. Robert Carpenter, Assistant Director, Special Projects
Department of Special Education Program Development
and Evaluation
Division of Special Education Services

Mr. Lee Iverson, Chief
Division of Children's Schools
Department of Children and Family Services
404 State Office Building
Springfield, Illinois 62706

Mr. Lyman Samo, Chief
Division of Special Education Services
Department of Mental Health
534 South 2nd Street
Springfield, Illinois 62706

Mr. Edward Bentley, Supervisor
Data Center
Division of Finance and Statistics
325 South 5th Street
Springfield, Illinois 62706

X. CURRENT REPORT FORMATS

Application for Conditional Approval of
Special Education Programs

Teacher Service Record

(50947—10M—4-68) 10

OSPI 80-04-110

RETURN IN QUADRUPLICATE
RETAIN ONE COPY

SCHOOL YEAR ENDING JUNE 30, 1969

STATE OF ILLINOIS
OFFICE OF THE SUPERINTENDENT OF PUBLIC INSTRUCTION
RAY PAGE, Superintendent
DEPARTMENT OF SPECIAL EDUCATION
PROGRAM DEVELOPMENT AND EVALUATION
316 South Second Street
Springfield, Illinois 62706

APPLICATION FOR CONDITIONAL APPROVAL OF SPECIAL EDUCATION PROGRAMS

County _____ District Number _____

Name of District Superintendent _____ Address of District Superintendent _____ Zip Code _____

Telephone: Area Code _____ No. _____

Name of Administrator of the Joint Agreement _____ Address of Administrator of Joint Agreement _____

Telephone: Area Code _____ No. _____

Check only **one** box indicating type of administrative pattern for prog listed in this application:

☐ Local School District Only

☐ Joint Agreement Only*

☐ In a Joint Agreement and also mai ... List all programs **not** in the Joint Agreement.

(REPRODUCED FROM STATE FORM)

*If this application is a Joint Agreement, attach a list of all participating districts and a copy of the Joint Agreement.

School districts that are members of a Joint Agreement, must submit an Application for Condition Approval for programs operated separately from the Joint Agreement, with the exception of tutoring programs and transportation.

INSTRUCTIONS

The Law requires that a district desiring State reimbursement for the costs of special education must submit an application for approval of the program on or before 30 days after a special class or service is started.

This application must be completed in quadruplicate and submitted to the office of the county superintendent of schools.

Applications reaching the office of the county superintendent of schools after the 30-day period will have reimbursement computed from the date the application is received.

After review by the Office of the Superintendent of Public Instruction, two copies will be returned to the county superintendent of schools who will forward one copy to the local district.

Notification of change of personnel and or termination of a special class or service during the school year must be sent to the office of the county superintendent of schools at the time of the action and he will forward the notification to the Office of the Superintendent of Public Instruction. Use Notification of Special Education Program Change, OSPI 80-04-112.

DATE RECEIVED BY COUNTY SUPERINTENDENT:	DATE RECEIVED BY THE OFFICE OF THE SUPERINTENDENT OF PUBLIC INSTRUCTION:

I.

PROFESSIONAL WORKERS

Name of Professional Worker	Date Program Started	Program Classification	Type Program			District Number	Pupil Enrollment	Age Range	Portion of School Day or Week Employed	Annual Salaries on Full-Time or Part-Time Basis
			C	R	I					
(1)	(2)	(3)	(4)			(5)	(6)	(7)	(8)	(9)
1.										$
2.										
3.										
4.										
5.										
6.										
7.										
8.										
9.										
10.										
11.										
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32.										
33.										
34.										
35.										
36.										
37.										
38.										
39.										
40.										

(REPRODUCED FROM STATE FORM)

II. NONCERTIFIED EMPLOYEES

Employee's Name (1)	Date Employed (2)	Program Classification (3)	Teacher or Teachers Whom Employee Assists (4)	Salary of Noncertified Employee (5)
1.				$
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				

(REPRODUCED FROM STATE FORM)

III. TUTORING PROGRAMS*

If you plan to provide tutoring services or think the possibility of providing such services might arise, please check all the appropriate boxes below.

All programs for the Maladjusted and Multiply Handicapped including tutoring, must be preplanned with the Department of Special Education Program Development and Evaluation prior to the initiation of services.

*Transportation costs of tutors are not eligible for reimbursement.

PHYSICALLY HANDICAPPED		MALADJUSTED		MULTIPLY HANDICAPPED
Homebound	☐	A - Socially Maladjustment	☐	☐
Hospital	☐	B - Learning Disabilities	☐	
Home-to-School Telephone	☐	C - Emotionally Disturbed	☐	

IV. TRANSPORTATION

Complete the following if you plan to provide transportation:

1. Estimated number of pupils to be transported to special classes and/or services in district _____
2. Estimated number of pupils to be transported to special classes and/or services out of district _____
3. Estimated number of handicapped pupils to be transported to regular classes _____
4. Estimated number of handicapped pupils to be transported to nonpublic schools _____

Check type of carrier:

1. District-Owned School Bus or Vehicle ☐
2. Contracted School Bus or Vehicle ☐
3. Taxi Cab ☐
4. Parent-Owned Vehicle ☐
5. Public Service Corporation ☐

Examples for No. 5

a. City-Owned Buses
b. C.T.A. (Buses and/or Elevated Trains)
c. Other Commercial Vehicles

D13-25

CONTRACTUAL AGREEMENT

The School Board (or Board in Joint Agreements), hereby agrees to submit within 30 days upon request from the Department of Special Education Program Development and Evaluation, Office of the Superintendent of Public Instruction, any supplementary information that may be required.

The School Board (or Board in Joint Agreements) hereby agrees that the final decision for reimbursement by the State depends upon (1) programs planned and operated according to the Rules and Regulations, Department of Special Education Program Development and Evaluation, Office of the Superintendent of Public Instruction, filed July 1, 1964, with the Office of the Secretary of State, and (2) approval based on visitation and/or other evaluations made by the Department of Special Education Program Development and Evaluation, Office of the Superintendent of Public Instruction.

The School Board (or Board in Joint Agreements) hereby agrees that the following will be adhered to: "Such school boards shall include only eligible children in the program and shall meet all the requirements of this Act together with all rules and regulations established by the Superintendent of Public Instruction." Article 14 of The School Code.

The School Board (or Board in Joint Agreements) hereby agrees: "If the money appropriated by the General Assembly for such purpose for any year is insufficient, it shall be apportioned on the basis of the claims approved." Article 14 of The School Code of Illinois.

STATE OF ILLINOIS, _____ County, ss:

We, the undersigned, do solemnly swear (or affirm) that the foregoing statements are true to the best of our knowledge and belief, that said school district (or districts in Joint Agreements) has complied with the requirements of the law as set forth in Article 14 of The School Code of Illinois.

_____
Superintendent or Special Education Administrator

_____
Clerk or Secretary of School Board and/or the Chairman of the Joint Agreement Board.

Subscribed and sworn to in my presence by the said _____ this _____ day of

_____ 19____.

Notary Public _____ County, Illinois _____
(Signature of Notary)

Date application was sent to County Superintendent's Office: _____

(DISTRICT WILL NOT FILL IN THE FOLLOWING SECTION)

COMMENTS OF COUNTY SUPERINTENDENT:

(REPRODUCED FROM STATE FORM)

Certificates for teachers listed in this application are valid and properly recorded in this office.

Yes_____ No_____.

Reviewed and approved by: _____
County Superintendent of Schools

Date_____ Address_____

COMMENTS OF STATE OFFICE:

Date _____ By _____

Reviewed for
RAY PAGE
Superintendent of Public Instruction

10,000 c

CODE
COUNTY
DISTRICT NAME
DISTRICT NUMBER
STREET
CITY
ZIP CODE

STATE OF ILLINOIS

OFFICE OF THE SUPERINTENDENT OF PUBLIC INSTRUCTION
RAY PAGE, SUPERINTENDENT

TEACHER SERVICE RECORD

DISTRICT SUPERINTENDENT'S SIGNATURE DATE

COUNTY SUPERINTENDENT'S SIGNATURE DATE

SCHOOL YEAR PAGE NO.

(1) NAME LAST FIRST MIDDLE INITIAL	(2) MARITAL STATUS & SEX	(3) BIRTH DATE MO. DAY YR	(4) SOCIAL SECURITY NUMBER	(5) CERTIFICATE TYPE 1	TYPE 2	(6) ANNUAL SALARY	(7) MO EMPL	(8) % TIME EMPL	YEARS EXPERIENCE (9) DIST	(10) ILL	(11) OUT OF STATE	(12) TOTAL	(13) BACC. DEGREE	(14) HIGHEST DEGREE	(15) COLL UNIV	(16) POSITION	(17) GRADE LEVELS	(18) MAIN		

(REPRODUCED FROM STATE FORM)

OSPI 20-04-120 (REV. 4/66)

SUPERINTENDENT OF PUBLIC INSTRUCTION

D13-27

Table 1
SUMMARY OF DATA DEVELOPMENT STATUS

ILLINOIS

DATA ELEMENTS			PUBLIC SCHOOLS			STATE INSTITUTIONAL SCHOOLS			STATE RESIDENTIAL SCHOOLS			PRIVATE SCHOOL DATA
			CURRENT STATUS	METHOD OF DEVELOPMENT	SOURCE OF DATA	CURRENT STATUS	METHOD OF DEVELOPMENT	SOURCE OF DATA	CURRENT STATUS	METHOD OF DEVELOPMENT	SOURCE OF DATA	
NUMBER OF CHILDREN IDENTIFIED AS NEEDING SPECIAL EDUCATION	ENROLLED	AGE	Available by age range only	Introduction of new forms to be used at district level to report on individual children	Proposed matrix form to record enrollment	Available by age range only	Specific data items could be requested from current ADP information system	Data processing reporting system used by Dept. of Mental Health	Not now available at state level	Needed data could be requested from each school on an individual basis by Chief of Division	Individual residential schools — channelled through Chief of Division	Low probability of development of needed data in near future
		HANDICAPPING CONDITION	Available by class, not individual			Not fully broken down by type						
		EDUCATION PROGRAM				(Residential)						
	ON WAITING LIST	AGE	Not now available		Proposed matrix form to record waiting list	Not now available						
		HANDICAPPING CONDITION	Has been approximated by Quadrennial Census			Not fully broken down by type						
NUMBER OF CHILDREN MOVING INTO AND OUT OF IDENTIFIED HANDICAPPED CHILD POPULATION	NEWLY DIAGNOSED AS NEEDING SPECIAL EDUCATION	AGE	Not now available		Proposed matrix form to record new diagnoses and intra-state transfers	Not now available	Each school could be asked to monitor this element	Could be requested from each school by Chief of Division				
		HANDICAPPING CONDITION										
	INTRA-STATE TRANSFERS	AGE	Not now available									
		HANDICAPPING CONDITION										
	ATTRITION FROM THE IDENTIFIED HANDICAPPED POPULATION	AGE	Not now available		Proposed matrix form to record attrition							
		HANDICAPPING CONDITION										
		REASON										
YEARLY PROJECTIONS OF THE CHILD POPULATION, BY AGE			Basic data now exists		Dept. of Educational Research							
DATA USED TO SIMULATE SPECIAL EDUCATION	EDUCATION PROGRAM MIX TRENDS		Could be done using current "Application" forms	Proposed new forms would be easier to use	Proposed new forms, or current "Application" forms	Could be developed	Analysis of enrollment data	Data processing reporting system	Not now available at state level	Needed data could be requested from each school on an individual basis by Chief of Division	Individual residential schools — channelled through Chief of Division	Low probability of development of needed data in near future
	TYPES OF PERSONNEL AND PERSONNEL/PUPIL CONTACT RATIOS	TARGET GROUP	Currently available		"Rules and Regulations to Govern Admin. and Operation of Special Ed."	Currently available — same as public school ratios		Could be confirmed by Chief of Division				
		EDUCATION PROGRAM										
OPTIONAL: NUMBER OF SPECIAL EDUCATION PERSONNEL EMPLOYED, BY TYPE				Expansion of Teacher Service Record could yield more data	"Application" forms, and/or Teacher Service Record	Currently available		Annual Report — Summary of Statistical Data for Sp. Ed. Services				

INDIANA STATE ANALYSIS REPORT

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The research reported herein was performed pursuant to Contract No. OEC 0-9-08928-0710 with the Bureau of Education for the Handicapped, Office of Education, U.S. Department of Health, Education, and Welfare. Contractors undertaking such projects under Government sponsorship are encouraged to express freely their professional judgment in the conduct of the project. The points of view or opinions stated do not, therefore, necessarily represent official Bureau position or policy.

INDIANA STATE ANALYSIS REPORT

I. INTRODUCTION

Sponsored by the Bureau of Education for the Handicapped (BEH), Operations Research, Inc. (ORI) has developed a mathematical model that provides the framework for systematic consideration and evaluation of major elements contributing to the determination of special education manpower needs. The model has been designed for application by state special education agencies and, when fully implemented, will assist each state in the systematic prediction of its own special education manpower needs, based upon individual state educational characteristics. The model will simulate present and future manpower needs under varying assumptions regarding changes in personnel/pupil contact ratios, the educational program mixes, the child participation rate, or any combination of these variables.

Following development of this Manpower Requirements Projection Model, a visit was made to each of the 50 state special education agencies in order to familiarize the states with the objectives of the program and to conduct a survey of current state information flow procedures. The purpose of the survey was to review and analyze the capability and potential for utilization of this model by the state agencies responsible for the education of handicapped children. The survey included an analysis of:

a. The capability of existing information flow processes to provide the necessary model input data

b. The existing automatic data processing capability to process the model program

c. The special education staff capability and desire to utilize the model.

This report presents the findings of the survey in the State of Indiana and contains recommendations pertaining to the establishment of information flow procedures for model utilization as well as to the improvement of general information availability for special education program management. The data development status is summarized in Table 1 at the end of this report.

II. SUMMARY

Indiana, at the present time, has limited capabilities for collecting those items of data which are required to support the Manpower Requirements Projection Model in a form which is suitable for model use. However, considerable data are being collected, and the potential is good for obtaining all the required data, in usable form. Major problems foreseen in implementation of the model are in development of data sources for certain items and the development of an information flow system with inter-agency data transmission.

Adequate computer processing facilities are available through the State Department of Administration. Personnel within the Special Education Division have had limited direct experience with Automated Data Processing procedures and problems. It is anticipated that additional manpower will be required for coordination efforts and data preparation.

The Division of Special Education recognizes the value of the model output and seems willing to support those activities required to exercise the model.

III. EDUCATIONAL RESPONSIBILITIES

The primary state educational agency for the state of Indiana is the State Department of Public Instruction. This department is headed by an elected official, the State Superintendent of Public Instruction. He, along with the Indiana State Board of Education, is responsible for the development and implementation of standards for education in the public schools.

Legislative actions through the years have placed responsibility for the operation of state residential schools and certain other educational programs with state agencies other than the Department of Public Instruction.

The Division of Special Education reports to the Assistant Superintendent for Instructional Services. The Division is responsible for the state-wide public school program for handicapped children including the deaf and hard of hearing, visually handicapped, physically and mentally handicapped, the emotionally disturbed, and those with speech and hearing disorders. The Division operates a program of financial reimbursement to school corporations which maintain approved special education services. With approval of the State Superintendent and the Commissioner of General Education, the Division establishes standards on curriculum, class size, class facilities, and pupil eligibility for services. An extensive program of in-service education through study institutes, seminars,

and workshops for special education teachers is sponsored by the Division. A major responsibility is to provide a field consultative service to schools in the development and maintenance of special education programs.

Other state agencies who have responsibilities for educating the handicapped are the State Board of Health and the Department of Mental Health.

The State Board of Health operates the School for the Blind and the School for the Deaf. The Indiana Department of Mental Health operates 11 institutions which provide some educational programs. Seven of these are treatment centers for the mentally ill, one is directed at serving the neurologically impaired, and three serve the mentally retarded. Locally organized and operated day care centers, primarily serving the mentally retarded, are also supported by the Department of Mental Health.

The Department of Corrections operates eight facilities which have the broad goal of rehabilitation of the inmates. However, the main thrust is treatment for delinquents, and they are not considered as special education activities.

No private schools offer special education in Indiana.

The relationship of the various agencies that participate in the education of handicapped children in Indiana is informally presented in Figure 1. This diagram shows only those agencies which have some responsibility for handicapped child education and is not intended to include all of the many other functions which each agency performs.

IV. DATA ELEMENT EVALUATION

Some specific data elements are necessary to the use of the Manpower Requirements Projection Model. The information which these data elements provides may also be very useful to the Division of Special Education for other operational analyses. Those data elements and their potential sources are discussed in the following paragraphs.

Number of Children Identified as Needing Special Education

There are two categories of information pertinent to the identified handicapped child population: those enrolled in special education programs, and those diagnosed as needing special education services and waiting to be enrolled.

Enrolled. The enrollment data elements required are enrollment by single year of age, handicapping condition and educational program (residential, full time special day class, part time special class and part time regular class, itinerant, etc.).

The data by single year of age and handicapping condition, for public schools only, and with the exception of speech and hearing, is available from a series of forms designated as Form 23A, Form 23B, etc. In this series of forms a different form is used for each of the handicap conditions. The basic

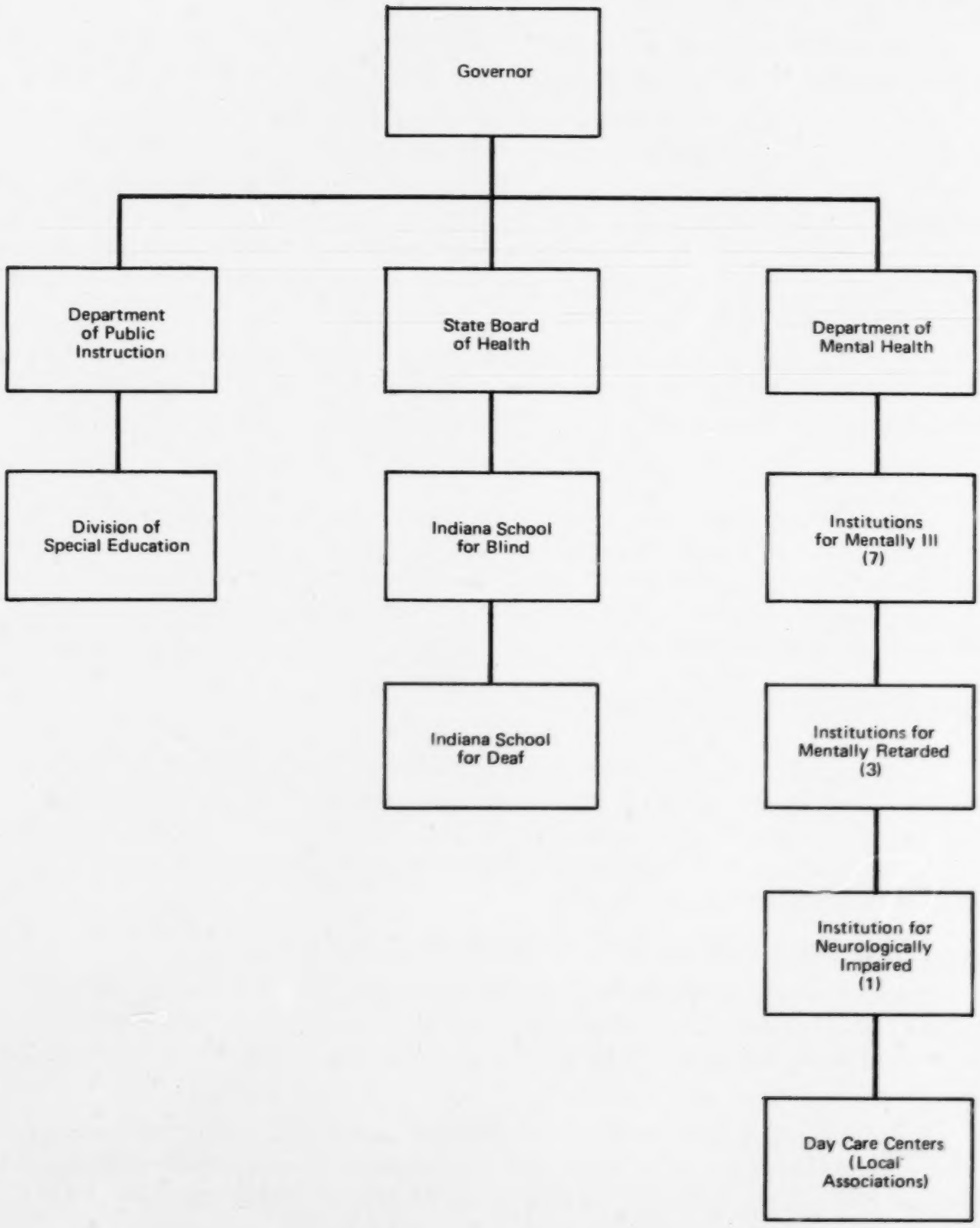

FIGURE 1. RESPONSIBILITY FOR EDUCATION OF HANDICAPPED CHILDREN IN INDIANA

enrollment data is the same but the forms also contain information unique to the handicap condition to which they apply. The portion containing the age data is shown in Figure 2. Form 23S, which has data about speech and hearing therapy, currently reports only total children enrolled. This form could be modified to obtain numbers of children by age.

The educational program enrollment data could be obtained from the appropriate Form 23 by adding a line at the top of the page for recording the educational program type.

Enrollment data is available for the state schools for the deaf and the blind from reports submitted by them to the State Health Commissioner. However, there presently is no lateral transmission to the Division of Special Education.

Waiting List. The other facet of the handicapped child population, those who have been identified and are awaiting special education services, must be considered when planning for total services required.

Two acts recently passed by the General Assembly directly affect this and other data elements. These acts provide that the State Commission for the Handicapped shall develop a plan to provide diagnostic and evaluative services for all the handicapped in the state and for the creation of a system of reporting handicaps and handicapping condition to the State Board of Health. The Commission for the Handicapped is directed to compile and distribute this information. Data concerning the handicapped, when distributed to the local level, will enable the local school corporations to accurately determine the number of children awaiting service. This data could be obtained for the public schools by modifying forms 23 to include names of children (except speech and hearing therapy) who are on the waiting list. There are no preschool age services available through the public school system; therefore, diagnosed children in this age group would not be reported.

Number of Children Moving Into/Out Of Identified Handicapped Child Population

The movement of children within the handicapped child population needs to be traced to determine the effects of annual incidence and attrition on the service required.

Newly Diagnosed. The purpose of obtaining information pertaining to children newly diagnosed in a year is to develop some information on the annual incidence rates. In the acts previously mentioned, plans are being formulated for channeling all handicapped child diagnostic findings, regardless of source, into the State Board of Health. With this procedure available, the accumulation of annual incidence data by handicapping condition and single year of age should not be difficult. If the annual diagnostic effort will endeavor to include all previously undiagnosed children, then the basis for the establishment and validation of an incidence rate in Indiana should be feasible.

PAGE 2 OF FORM FOR BLIND OR PARTIALLY SIGHTED

Page 2

PUPIL INFORMATION

NAME OF PUPIL	AGE	MEDICAL INFORMATION			IQ
		DATE	MEDICAL EVALUATION	PHYSICIAN	
Example: Brown, William	10	4-10-65	Left Eye 20/200 Right Eye Totally Blind	Smith, John, M.D.	Verbal Perf. Full Scale
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
13.					
14.					
15.					

(REPRODUCED FROM STATE FORM)

FIGURE 2. PORTION OF FORM 23B
SHOWING AGE DATA

Attritions. Attritions constitute the deductions from the handicap child population of the local education agency (LEA). No attrition data for public schools is currently reported to the Division of Special Education. A form used by the Speech and Hearing Programs does contain the requirement to record attritions, by education level, for causes such as therapy completed, dismissed for other reasons, and lost by transfers. This Form 24S, shown in Figure 3, is prepared at the school corporation level, and establishes a precedence for the accumulation of attrition data.

DEPARTMENT OF PUBLIC INSTRUCTION DIVISION OF SPECIAL EDUCATION

FORM 24S

For 1968-69 Speech and Hearing Programs

This page to be completed by one person for the total program and filed with Form 24.

I. Name and title of person completing this report _____

School Corporation _____

II. PUPIL INFORMATION

A. Total number of pupils (for all therapists):

	K-8	9-12
1. Given speech test		
Screening		
Referrals		
2. Enrolled during the year		
Articulation		
Stuttering		
Voice		
Delayed Language		
Cleft Palate		
Cerebral Palsy		
Hearing Loss		
Other		
TOTAL		
3. Needing therapy but not enrolled at any time during year.		
4. Dismissed (therapy completed)		
5. Dismissed (other reasons)		
6. Lost by transfer		

(REPRODUCED FROM STATE FORM)

FIGURE 3. FORM 24S FOR SPEECH AND HEARING PROGRAMS

Attritions could be summarized at the local level and reported to state level on a form similar to that shown in Figure 4. The attrition categories are only examples of causes. The state, of course, could apply those categories which best serve its requirements. This same format could possibly be used by other state agencies and institutions for reporting their attritions.

Date	Local Education Agency	Location

Handicap Condition _____

Attrition Categories	Age																Total
	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
Returned to Regular Education Procedure																	
Intrastate Transfer to Another LEA																	
Mortality																	
Moved out of State																	
Other (Dropout, Graduation, etc.)																	
Total																	

Handicap Condition _____

Attrition Categories	Age																Total
	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
Returned to Regular Education Procedure																	
Intrastate Transfer to Another LEA																	
Mortality																	
Moved out of State																	
Other (Dropout, Graduation, etc.)																	
Total																	

FIGURE 4. SPECIAL EDUCATION ATTRITION SUMMARY REPORT

General Child Population Projections

The projections of general child populations by individual year and by single year of age for the number of years for which manpower projections are to be made is a model data element requirement. These are the values to which validated incidence rates will be applied to in the forward projection of the handicapped child population. State child population projections are made by the State Division of Planning.

Data Used to Simulate Special Education Requirements

The Manpower Requirements Projection Model has the capability of simulating manpower requirements based upon selected variations of input data. Two such data elements are education program mix trends and personnel/pupil contact ratios. A simulated change in the education program mix (for example, returning blind and deaf children to regular classes supplemented by resource room work instead of special classes) can be analyzed for its effect on manpower requirements. A proposed change in teaching technology that could affect the teacher/pupil contact ratio can be simulated to determine its effect on manpower requirements.

Educational Program Mix Trends. At the present time the lack of detailed data from the local level deprives the Special Education Division of the informational base from which to develop analysis of trends. However, if the Form 23 series is modified to include information by type of educational program, the necessary historical data can be accumulated to provide the basis for future analytical efforts pertaining to enrollment and education program mix trends. In the interim, the staff may be able to derive model input data based upon experience.

Personnel/Pupil Contact Ratios. Rule S-1, of the Rules and Regulations of the Commission on General Education, Section 3, specifies the optimum class sizes for educationally mentally retarded by education level; for trainable mentally retarded by handicap condition only; for speech and hearing programs by case load and group sizes; for physically handicapped, blind and partially sighted, and the deaf and hard of hearing, the class size is determined by the local director of special education. Until such time as optimum class sizes are specified for those handicap conditions where no legislated limitations exist, the Special Education Division should utilize the desirable personnel/pupil ratios, based upon their experience, when utilizing the Manpower Requirements Projection Model.

Number and Type of Special Educators Employed

The determination of a special education manpower gap (the difference between projected requirements and present staff) requires an identification of the number of special education teachers, by type of handicap condition and education level taught. This information is obtainable from the Form 23 series. The data is currently aggregated by teachers for each handicap condition as evidenced by the statistics contained in the Indiana Department of Public Instruction, Division of Special Education Annual Report.

V. PROCESSING POTENTIAL

None of the three state agencies responsible for special education programs in the state is currently utilizing ADP in controlling and reporting on the programs for which they are responsible. The state schools for the deaf and blind maintain sufficient records to provide the required data concerning their operations, and do not present any serious data flow development problems.

The State Department of Administration operates the primary computer facility in supporting state government activities. The computer center supports 32 state agencies, including the Department of Public Instruction.

Hardware

The current computer complex consists of an IBM 360/50 which utilizes an IBM 360/30 for input/output. The 360/30 is soon to be upgraded to a 360/40. The system utilizes remote terminals and operates in a combined teleprocessing and batch mode. The entire system is being converted to an RCA Spectra 70 System, which must have a processing capability at least as great as the current system. The computer is scheduled on a 3 shift, 5 day a week basis. Core storage is 256 K bytes and it does have a FORTRAN compiler, although 95% of the programming is in COBOL. The computer is physically located in the same building as the Special Education Division. No problem is expected in computer adequacy for running the model.

Personnel

The professional staff of the computer center consists of 8 analysts, 3 programmer analysts, and 19 programmers. One analyst is assigned to serve the needs of the Department of Public Instruction, and all applications for the Department are coordinated through this analyst. Within the Department of Public Instruction there is the Information and Educational Research Division, which handles the data processing requirements for the department. Currently there are only four data processing professionals and three keypunch operators in the Research Division. The computer center does not do any data preparation. Therefore, all computer input data supporting the educational programs must be generated within the Research Division. Generation of the computer input data required to support the model will place further demands on an already limited staff.

Programs and data are sent to the computer center to be run, under a closed shop operation. Therefore, actual operation of the ADP equipment will present no problem. The requirements of the computer complex as to control cards, deck construction, etc., should be known by the computer professionals within the department.

Several persons within the Division of Special Education are quite capable of analyzing and evaluating the model output, although there is very little current experience with ADP. Some orientation and training in data processing concepts and procedures would be advantageous to the Division.

Acceptance of Model Concept

The Division of Special Education is generally receptive to the use of a mathematical model and to the development of the information required to support it. While there is recognition of the need for the type of data which would be produced by the model, the potential value of the simulative capabilities of the model needs further evaluation before complete acceptance will be realized.

Not all data required to support the model flows through the Education Department. To these other areas, the significance or value of the model is not readily apparent. Although data required for the model may be forthcoming, it will be collected primarily to meet other needs.

VI. ADDITIONAL FACTORS

The recent legislation, enacted by the Special Assembly requiring services for the handicapped of the state, makes the environment very favorable for implementation of the manpower projection model. The open-mindedness and cooperative attitude shown within the Division of Special Education will also have a salutory effect on system implementation. However, there is no data flow between the Department of Mental Health and the Division of Special Education, and it is badly needed to support the model.

VII. RECOMMENDATIONS

The development of an information flow pertaining to the handicapped child population in Indiana involves more than the determination of data element sources and the prescription of a flow path. The concept of a centralized data base, in which data would be provided in a compatible format so that it could be accumulated and processed for output in a format convenient to the user, must first be accepted by those who would benefit most by its availability. Those benefactors would be the supervisors and specialists in various state agencies, and perhaps the legislature, who would be able to obtain consolidated and coordinated data pertaining to either specific or summarized handicap education areas.

The Indiana agencies serving the handicapped child population have a current need for coordinated special education information. In the future, as the number of children served increases and the services available to them are expanded, the requirement will become even more essential to the efficient administration of the state's handicapped child education programs.

Some of the steps critical to the implementation of the Manpower Requirements Projection Model are included in the following recommendations.

a. The series of forms, designated as 23-A, 23-B, etc., which are submitted in the Fall should be modified to include an indication of the type of educational program for which approval is sought. Form 23S,

approval for speech and hearing therapy, should be modified to include number of pupils enrolled by age. In addition, a section of the form should provide for reporting those known to be waiting for special education service. Data obtained then would be:

- Number of children by age, handicapping condition, and educational program
- Number of children awaiting service, by age and handicap
- Personnel/pupil contact ratios, by educational program and target group.

b. Using prevalence rates is, at best, an interim method of estimating the total handicapped child population. These rates are a starting point for such an estimation, but to be useful in the long run, not only for applying the model but for other state planning purposes, they should be validated with actual data. Such validation can be done by collecting appropriate data and making successive approximations.

With the emphasis placed upon the diagnosis of the handicapped child population by the two legislative acts previously referred to, the data for validation of incidence rates should be forthcoming. A procedure should be developed within the Board of Health for aggregating this data so that it will be available for use in model application. This procedure will have to include a method for eliminating duplications resulting from multiple diagnosis of the same child by different diagnostic sources. If the names were included in an automated data processing system, elimination of duplications could be easily accomplished.

c. A form similar in content to that discussed in Section III and shown in Figure 4 could be adopted to facilitate the transmission of attrition data from the local school corporation to the state level.

d. Consideration might be given to the development of optimum class size guidelines for those handicap areas where none presently exist. Projection of special education manpower requirements is contingent upon the rate of application of the manpower to the population to be served.

e. Data collection for the public schools will not provide complete data for the state's total handicapped child services, and no known channels presently exist for obtaining it. Therefore, it is recommended that the Division of Special Education pursue the following courses of action:

1. Assign a consultant from within the Division to become familiar with the data required, why it is are required, how it will be used, etc.

2. Reinforce existing liaison with the other agencies concerned through personal contact and constructive dialogue so as to inform them of the need, enlist their support, and understand their problems concerning collection of this data.

3. Present to all agencies precise and readily understandable specifications of the data which are required and the time frame in which they are needed.

VIII. RESOURCE REQUIREMENTS—MANPOWER

The Special Education staff, at the time of the survey staff visit, did not have the capability to implement an information system (design an information flow system, determine data sources, design input forms, prepare input data, program ADP applications, and design output formats). The Information and Educational Research Division within the Department of Public Instruction does have this capability.

It is estimated that the implementation phase for a data information system to support the Manpower Requirements Projection Model needs will require approximately 2 man-months of special education staff effort, 2 man-months of systems analyst time, and 1 man-month for programming over a period of 18 months.

Maintenance of the system (coordination of inputs, quality control improvements, preparation of special report specifications) will probably require 1 man-month of combined effort per year.

IX. PERSONNEL INTERVIEWED

The personnel interviewed by the ORI (Leasco) representative, Mr. James Peterson, during the week of October 6, 1969, were:

Les Brinegan	Director, Division of Special Education
James Alley	Assistant Director, Division Special Education
Lon Woods	Consultant for Mentally Retarded, Division Special Education
Bill Duckworth	Consultant for Visually and Physically Handicapped
Carol Eby	Coordinator of Special Projects, Division Special Education
Miles Daggy	Consultant for Emotionally Disturbed, Division Special Education
Rae Lewis	Regional Consultant
Earl Grove	Director, Educational Information and Research Division
Ray Benson	Director of Education and Activity Therapy
Jack Cunningham	Systems Analyst, Educational Information and Research Division
A.J. Lamb	Superintendent, Indiana School for the Deaf
D.A. Hutchinson	Superintendent, Indiana School for the Blind
Paul Brown	School Psychologist, Indianapolis Public Schools

TABLE 1

SUMMARY OF DATA DEVELOPMENT STATUS

INDIANA

DATA ELEMENTS			PUBLIC SCHOOLS			STATE INSTITUTIONS		
			CURRENT STATUS	METHOD OF DEVELOPMENT	SOURCE OF DATA	CURRENT STATUS	METHOD OF DEVELOPMENT	SOURCE OF DATA
NUMBER OF CHILDREN IDENTIFIED AS NEEDING SPECIAL EDUCATION	ENROLLED	AGE	Available except for speech and hearing	Modify Form 23 series	School Corporation	Available from State Health Commissioner	Inter-agency transmission of data	Individual institution to State Health Commissioner
		HANDICAPPING CONDITION						
		EDUCATION PROGRAM	Not available					
	ON WAITING LIST	AGE	Not available	Include names on Form 23 series				
		HANDICAPPING CONDITION						
NUMBER OF CHILDREN MOVING INTO AND OUT OF IDENTIFIED HANDICAPPED CHILD POPULATION	NEWLY DIAGNOSED AS NEEDING SPECIAL EDUCATION	AGE	Not available	Under new laws will be reported by all diagnostic sources to the State Board of Health. Interagency transmission of data to the data processing center will have to be established.				
		HANDICAPPING CONDITION						
	INTRA-STATE TRANSFERS	AGE	Not applicable			Not applicable		
		HANDICAPPING CONDITION						
	ATTRITION FROM THE IDENTIFIED HANDICAPPED POPULATION	AGE	Not available at Division of Special Education	Develop procedure and form similar to Figure 4	School Corporation	Not available at Division of Special Education	Use public school forms for inter-agency transmission	Individual institution
		HANDICAPPING CONDITION						
		REASON						
YEARLY PROJECTIONS OF THE CHILD POPULATION, BY AGE			Available	—	State Division of Planning			
DATA USED TO SIMULATE SPECIAL EDUCATION	EDUCATION PROGRAM MIX TRENDS		Not available except by staff experience	Modify Form 23 series	School Corporation			
	TYPES OF PERSONNEL AND PERSONNEL/PUPIL CONTACT RATIOS	TARGET GROUP	Available for some handicap groups	Use desirable ratios where none are established	Rule S-1 Rules and regulations of the Commission on General Education	Available		Individual institution
		EDUCATION PROGRAM						
OPTIONAL: NUMBER OF SPECIAL EDUCATION PERSONNEL EMPLOYED, BY TYPE			Available		Division of Special Education	Available		Individual institution

IOWA STATE ANALYSIS REPORT

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The research reported herein was performed pursuant to Contract No. OEC 0-9-08928-0710 with the Bureau of Education for the Handicapped, Office of Education, U.S. Department of Health, Education, and Welfare. Contractors undertaking such projects under Government sponsorship are encouraged to express freely their professional judgment in the conduct of the project. The points of view or opinions stated do not, therefore, necessarily represent official Bureau position or policy.

IOWA STATE ANALYSIS REPORT

I. INTRODUCTION

Sponsored by the Bureau of Education for the Handicapped (BEH), Operations Research, Inc. (ORI) has developed a mathematical model that provides the framework for systematic consideration and evaluation of major elements contributing to the determination of special education manpower needs. The model has been designed for application by state special education agencies and, when fully implemented will assist each state in the systematic prediction of its own special education manpower needs, based upon individual state educational characteristics. The model will simulate present and future manpower needs under varying assumptions regarding changes in personnel/pupil contact ratios, the educational program mixes, the child participation rate, or any combination of these variables.

Following development of this Manpower Requirements Projection Model, a visit was made to each of the 50 state special education agencies in order to familiarize the states with the objectives of the program and to conduct a survey of current state information flow procedures. The purpose of the survey was to review and analyze the capability and potential for utilization of this model by the state agencies responsible for the education of handicapped children. The survey included an analysis of:

a. The capability of existing information flow processes to provide the necessary model input data

b. The existing automatic data processing capability to operate the model program

c. The special education staff capability and desire to utilize the model.

This report presents the findings of the survey in the State of Iowa, and contains recommendations pertaining to the establishment of information flow procedures for model utilization as well as to the improvement of general information availability for special education program management. The data development status is summarized in Table 1 at the end of this report.

II. SUMMARY

Within the Iowa State Department of Public Instruction, the Division of Special Education receives enrollment data each year from special education programs operating in local public schools. Other data elements that would be useful for inclusion in the Manpower Requirements Projection Model would have to be developed by Special Education. The bulk of the needed data could probably be obtained through modification and expansion of the handicapped child reporting system that is now required as a result of the elementary and secondary special education mandate. It is anticiapted that the data that is reported to the state level by district level personnel in the future will be more complete and accurate, as a result of greater involvement of special education personnel in the identification and reporting of handicapped children.

The Department of Public Instruction operates its own computer and data processing facility, and the Division of Special Education is served by this facility. Automated tabulation of enrollment data is now being provided to Special Education, and it is anticipated that the tabulation of waiting list data, annual incidence data, and attrition data could also be handled through automated data processing. The Data Processing Division would also be capable of running the model for Special Education.

In addition to the public school special education programs residential schools for handicapped children are administered by the State Board of Regents, and state institutional schools for handicapped children are administered by the State Department of Social Services through its Bureau of Mental Retardation and Bureau of Mental Health. It is anticipated that the data elements needed for inclusion in the model could be requested from each of the residential and institutional schools by their state level administrators, and forwarded to Special Education.

The Director of the Division of Special Education was enthusiastic about the concept of the projection model. He expressed interest in obtaining the model, and willingness to develop as much of the data base as possible in order to utilize the model. He and his staff were very courteous and cooperative in providing information on the operations of special education programs in Iowa.

III. RESPONSIBILITIES FOR SPECIAL EDUCATION

All public school education in Iowa is administered by the Department of Public Instruction. The Superintendent of the Department is responsible to the State Board of Education, which is appointed by the Governor.

Within the Department's Office of Instruction the Pupil Personnel Services Branch, which includes the Special Education Division, is charged with state-level administration of the special education programs operating in the local public schools. Liaison is normally maintained through school superintendents at the county and local levels. In addition, there are approximately 35 Special Education Directors assigned to regions in the state, and these Directors provide coordination of the programs at the local level.

Residential programs for handicapped children are administered by the State Board of Regents and the State Department of Social Services, both responsible to the Governor.

The Board of Regents administers the School for Blind, the School for Deaf, and a Hospital School for physically handicapped children. Other services administered by the Board of Regents include a Child Development Clinic at the University of Iowa, and the State Services for Crippled Children, a mobile field operation.

The Department of Social Services administers the Woodward and Glenwood State Hospital Schools serving mentally retarded children, and four Mental Health Institutes serving emotionally disturbed children. Other non-education services are also provided for handicapped children by the Department.

A few non-public residential schools are operating in Iowa. Included are the Hope Haven School, Lutheran Childrens Home, Beloit Home, and Orchard Place. Most are serving emotionally disturbed children. Handicapped children identified in parochial schools in the state are normally served by the local public school programs.

The general structure of educational services for handicapped children in Iowa is illustrated in the informal organization chart shown in Figure 1.

IV. DATA ELEMENT EVALUATION

In order to utilize the Manpower Requirements Projection Model, specific data elements must be available to the Special Education Division at the state level. The status of these needed elements, and the potential to develop the flow of these elements to the state level, is discussed in the following paragraphs.

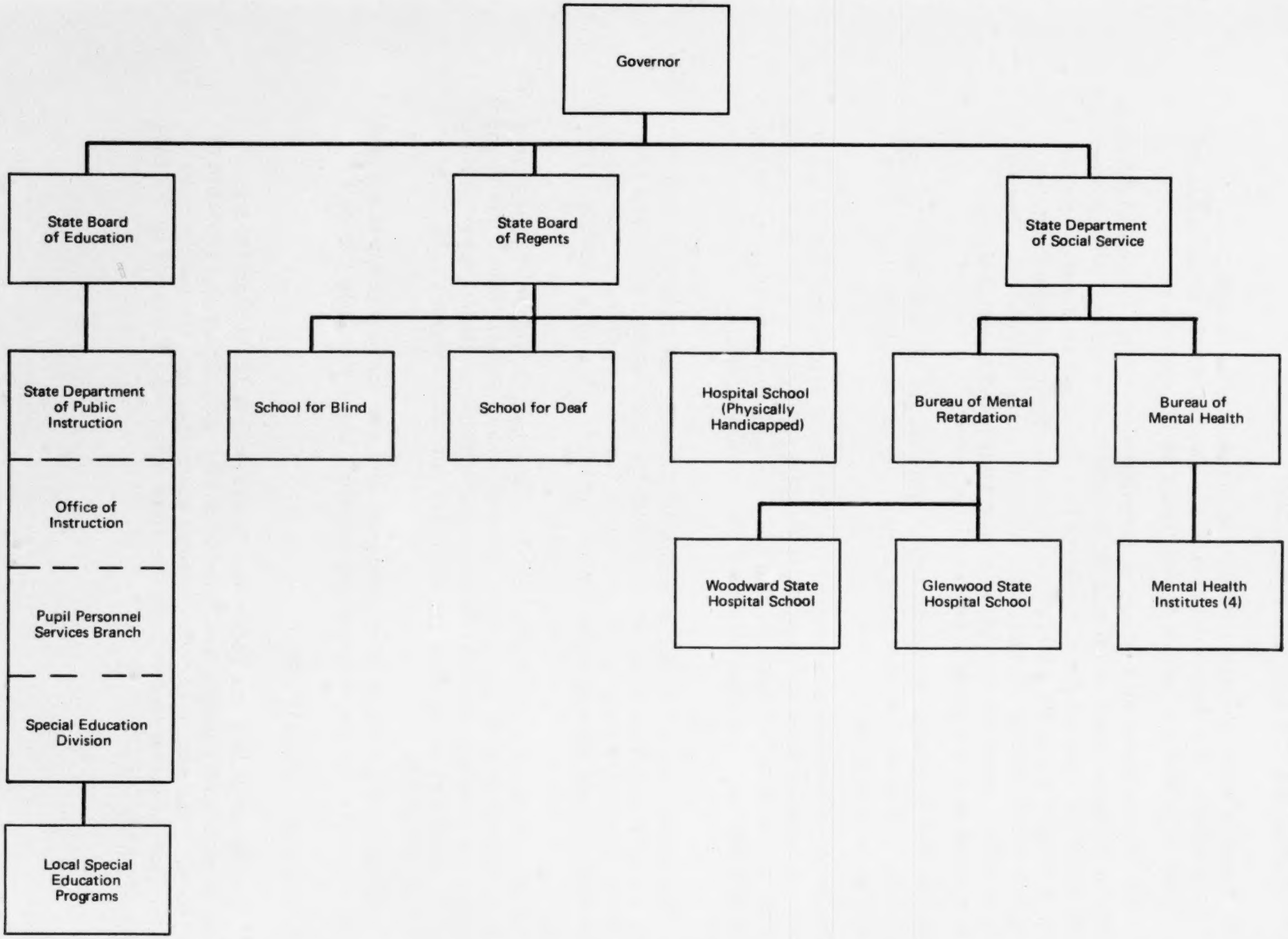

FIGURE 1. ORGANIZATION OF EDUCATIONAL SERVICES FOR HANDICAPPED CHILDREN IN IOWA

Enrollment

The Special Education Division receives data at the beginning of each year on the children enrolled in public school special education programs. A sample of the data collection form being used, "Report of Special Classes Serving Mentally Retarded Children," is shown on the following page (Figure 2). This type of form is being received for each handicap class program. It is not being received on speech handicaps, since this is not a class program, but is handled by clinicians working with individuals or small groups. At the end of each year, each speech clinician submits a Clinical Speech Services Report. This is a comprehensive six-page report which summarizes all services provided by the clinician during that year, including total counts of children served on an individual basis or group basis, total known problems and total receiving remediation, breakdown of all children served by grade and type of problem, etc.

A third form being used by the Division of Special Education is the Application for Approval of Service to an Individual Pupil (see Figure 3). This form is received for each child receiving individual instruction, e.g., home or hospital instruction, as opposed to class instruction.

Each of the three forms described contains data on the year of age and handicapping condition of the children served. Except for speech therapy and home instruction, the type of program in which the children are enrolled, e.g., day class, resource room, etc., is not now reported to the state level. If the Division of Special Education wanted to utilize the projection model to analyze the "mix" of program types, the data collection forms could be modified to include some indication of the program type in which each child was served.

The data on these report forms is currently being keypunched by the Data Processing Division within the Department of Public Instruction, and printouts of children enrolled are being used by the Division of Special Education. Thus no major changes are needed and no problems are anticipated in obtaining counts of children enrolled, by year of age, handicap, and, (if added to the data collection forms) program type.

Enrollment data on the state residential and institutional schools operated by the Board of Regents and Department of Social Services is not now available at the state level in the form needed for input to the model. This age-handicap data does exist at the school program locations, however, and could be obtained by each agency at the state level and forwarded to the Division of Special Education.

Likewise, enrollment data on private school programs is currently unavailable at the state level, but could be requested from each of these schools, on an individual basis each year, by the Division of Special Education.

888P-123SE

DATE _____

State of Iowa
DEPARTMENT OF PUBLIC INSTRUCTION
PAUL F. JOHNSTON, SUPERINTENDENT
DES MOINES

(PLEASE TYPE)

REPORT OF SPECIAL CLASSES SERVING MENTALLY RETARDED CHILDREN

ADMINISTRATIVE DATA

1. COUNTY NAME	4. CO. NO.	7. SUPERVISION	
		CONSULTANT M.R.	1
2. SPONSORING DISTRICT	5. DIST. NO.	BLDG. PR.	2
		DIR. SP. ED.	3
3. LOCATION OF CLASS	6. SCHOOL NO.	SUPT.	4
CITY		ELEM. SUPV.	5
NAME OF SCHOOL BLDG.			

TEACHER DATA	8. EXPERIENCE IN SPEC. ED. ____ YRS.
9. MISS MR. MRS. NAME (LAST) (FIRST) (M.I.)	10. FOLDER NO.
11. MAILING ADDRESS (RESIDENCE) (CITY)	12. SOC. SEC. NO.

13. APPROVAL STATUS				14. HIGHEST DEGREE HELD					
GRAND	1	T.A.	2	END.#35	3	NONE	0	BACH. 1	MASTER 2

CLASS DATA:

15 EDUCABLE		16. TRAINABLE		17. LENGTH OF DAY ____ MINUTES
PRE PRIMARY	0	PRE PRIMARY	0	18. LENGTH OF YEAR ____ DAYS
PRIMARY	1	PRIMARY	1	
INTERMEDIATE	2	INTERMEDIATE	2	19. PHYSICAL FACILITY
ADVANCED	3	ADVANCED	3	REG. SCH. CAMPUS 1
SECONDARY	4	OCCUPATIONAL	4	SEGREGATED 2
POST - SECOND.	5			

20. C.A. SPAN (SEPT 1) YRS. MOS.	21. INTEGRATED PROGRAM	
C.A. OF OLDEST ____ ____	SCHOOL LUNCH	1
C.A. OF YOUNGEST ____ ____	PLAYGROUND	2
C.A. SPAN (SUBTRACT) ____	MUSIC	3
	ART	4
	SHOP & HOME EC.	5
	PHY. EDUCATION	6
	CLUBS & ACTIVITY	7

STUDENT DATA

(DIRECTIONS ON REVERSE SIDE)

A LEAVE BLANK	B NAMES OF PUPILS (ALPHABETICALLY) (LAST) (FIRST) (M.I.)	C BIRTHDATE MO-DAY-YEAR	D C.A. (SEPT. 1) YRS-MOS	E SEX (M) (F)	F I.Q.	G LATEST TEST	H TEST USED	I DATE OF EXAM	J EXAMINER	K INITIAL PLACEMENT	L I.Q.	M PHY. EXAM. (X)	N DATE ENROLLED THIS YEAR	O DATE WITHDRAWN	P TUITION (1)(2)
	1.														
	2.														
	3.														
	4.														
	5.														
	6.														
	7.														
	8.														
	9.														
	10.														
	11.														
	12.														
	13.														
	14.														
	15.														
	16.														
	17.														
	18.														
	19.														
	20.														

(REPRODUCED FROM STATE FORM)

SIGNATURE _____ POSITION _____

CP.41388 6/66

FIGURE 2
D15-6

968P-764SE

SE-1

Date Service to Begin _____

Date Service to End _____

County Name _____

School District Name _____

SUBMIT IN TRIPLICATE

State of Iowa
DEPARTMENT OF PUBLIC INSTRUCTION
DIVISION OF SPECIAL EDUCATION
Des Moines 19

Application for Approval of Service to an Individual Pupil

INSERT ESTIMATED COST FOR EACH PROGRAM IN SPACES PROVIDED BELOW	*DO NOT WRITE IN COLUMN BELOW*
	Amount Approved

Pupil's Name _____ Age _____ Sex _____ Grade _____

Specific Disability _____

(If disability is emotional maladjustment, complete Section I on reverse side of each copy)

Mental Ability _____ Date _____ Tests Used _____

_____ Examiner _____

District supplying special education instruction (If other than district making application) _____

Type of Service - Complete Sections Below for Services Rendered

1. Transportation to and from school or public school therapy center. (For groups of children, list names of each in Section II on reverse side of each copy)

   How transported _____ Distance transported one way _____

2. Special assistance for transportation in and about school.

   Name of individual providing service _____

3. Home or hospital instruction for an individual pupil. Number [illegible] sits per week _____ Total lesson hours per week ___ [illegible] acher paid per visit _____.

4. Electrical school-to-home instruction [illegible] on reverse side)

   (Check one: Bell Tel. [illegible] [illegible]ut Tel. System _____

5. Tuition re[illegible] [illegible] class per pupil cost is charged.

   Amou[illegible] _____ Resident district's APPC _____

6. Loan or purchase of special education equipment or materials. (See reverse side, Section IV) (Check one: Loan _____ Purchase _____

DO NOT WRITE IN THIS SPACE	*Serial Number:*

7. Supplemental assistance while attending class. (Describe in Section V on reverse side of each copy)

8. Other. (Describe in Section VI on reverse side of each copy)

ESTIMATED TOTAL COST FOR PROPOSED PROGRAM:

DO NOT WRITE IN THIS SPACE

Estimated Amount Approved for Reimbursement

[ALL OF THE ABOVE APPROVAL AMOUNTS WILL BE PRO RATED EXCEPT PURCHASE OF EQUIPMENT PROGRAMS.]

The Undersigned Certify that the above statements are accurate and that a certificate appropriate to the disability specifically approving this program for this year is on file in the school district. In addition, the Undersigned Agree to abide by the following conditions relating to Items 4 and 6 above.

All necessary restitution will be made to the State Department of Public Instruction for the repair of damage to equipment or materials caused by negligence and the replacement of equipment or materials lost, stolen or destroyed.

SUPERINTENDENT	SPECIAL EDUCATION DIRECTOR	SCHOOL DISTRICT SECRETARY OR COUNTY BOARD PRESIDENT
REIMBURSEMENT WILL BE PAID TO DISTRICT REPRESENTED BY THE SIGNATORY SECRETARY	DATE APPLICATION COMPLETED	ADDRESS OF SECRETARY OR COUNTY BOARD PRESIDENT

(REPRODUCED FROM STATE FORM)

FIGURE 3

D15-7

Unserved Handicapped Child Population

There is currently no data at the state level on the number of children, by year of age and handicapping condition, who have been diagnosed as handicapped but not yet enrolled in a special education program. Local public schools, for the most part, have not maintained waiting lists of children needing special education. Iowa legislation now requires that special education be provided to all handicapped children in the state, at both the elementary and secondary level. This special education mandate is accompanied by the requirement that handicapped children be identified by local school superintendents, and that these children be reported to the state level each year. There appears to be a feeling among state level special education administrators, in Iowa as well as in other states, that because local districts are not capable of providing adequate special education programs (due to shortage of funds, personnel, facilities), little or no effort is made to identify handicapped children beyond the number of children that can be served. This not only undermines the mandate, it also destroys another legitimate avenue for data to be collected on the real need for special education in a state.

It is anticipated that in the future, special education personnel at the local level will be involved to a greater extent in the determination of the handicapped population in the districts, and the reporting of data on that population to the state level. Further, school psychologists will be reporting to the state level each year the children whom they have identified as handicapped within the local districts. The Division of Special Education is planning to cross-check the children reported by the district as handicapped with the children identified by the school psychologists, to determine the relative accuracy of the district data. In general, it appears that the special education mandate will result in increased involvement of special education personnel in the identification of handicapped children at the local level, and that this involvement will result in improved data and data flow to the state level.

In order for waiting list data to be useful for projection model purposes, it must contain the year of age and handicapping condition of the children identified. This data could be reported by the districts to the Division of Special Education in the form of lists of children identified, and could then be keypunched and printed out in the tabulated form needed. The data could also be tabulated by each district, and by each school psychologist at the district level, in the form needed for model input (counts by year of age and by handicap), and then submitted to the Division of Special Education. This latter approach of local tabulation might be considered if it appears that confidentiality for certain handicaps, such as emotional disturbance, could restrict the amount or accuracy of data that would be reported.

The Clinical Speech Services Report now being submitted by each speech clinician contains summary data on speech problems identified but not yet diagnosed, and speech problems not yet treated. If the waiting lists previously described will not include year of age data on speech problems,

this report form could be modified to include a breakdown of ages of these children diagnosed but not yet served by clinicians. This data could then be tabulated at the state level for input to the model.

No data on annual incidence of handicaps in the state has been collected by the Division of Special Education. Some local estimates of incidence have been made by special education staff, but this is not a regular procedure. National statistics on handicaps have been utilized in the past to estimate the handicapped population in the state. While national statistics may be accepted as a starting point in the estimation of annual incidence of handicaps, these estimated rates should be validated as much as possible by applying actual incidence counts, special studies, etc., to the estimations.

In order to obtain some actual incidence data for correction or validation of current incidence estimates (incidence rates being needed as input to the projection model), Special Education could attempt to monitor the number of new diagnoses of handicapped children being made each year. This could be accomplished in conjunction with the collection of enrollment and waiting list data, as described in previous paragraphs. For example, the Report of Special Classes forms could be modified to include a column to indicate whether each child enrolled had been diagnosed as handicapped for the first time that year. For new diagnoses, a code number or letter could be placed in the column behind the names of the appropriate children. The Application for Approval of Service to an Individual Pupil form could be modified to indicate whether that individual pupil had been diagnosed as handicapped for the first time that year. In addition, the waiting lists that could be submitted to Special Education each year could also be designed to allow for indication of children newly diagnosed. Finally, the Clinical Speech Services Report could be modified to allow each clinician to indicate, of the number of children served or waiting to be served, the number that were newly diagnosed as handicapped that year.

If each of the forms described could be used to identify children newly diagnosed, by year of age and handicap, this data on new diagnoses could be tabulated at the state level along with the enrollment and waiting list data.

In addition to children newly diagnosed as handicapped each year by district personnel, school psychologists, or clinicians, it is possible that schools will acquire children who have previously been disgnosed or identified as handicapped in other school districts in the state. Rather than reporting the children again as newly diagnosed (which could distort the annual incidence picture in the state), these intrastate transfers should be reported separately. One approach to doing this would involve the creation of a code letter or number for intrastate transfers, to be used in exactly the same manner as the codes previously described for identification of newly diagnosed children. Each of the enrollment forms, and the suggested waiting list, could be used to indicate intrastate transfers known to district and school special education personnel.

Other efforts to obtain data on the total handicapped population, and the unserved handicapped population, have been made by the Department of Public Instruction. Surveys have been conducted, in response to the secondary education mandate, to determine the number of handicapped secondary pupils enrolled in each district.

In addition, an Interagency Case Information Service (ICIS) is being developed in Iowa. This five-year project (begun in 1966) is being coordinated by the Bureau of Mental Retardation, Department of Social Services, with federal funding assistance provided by the Mental Retardation Branch, Public Health Service, HEW. Participants in this interagency data center include those state agencies which have responsibility, primary or secondary, for service to the mentally handicapped. A comprehensive six-page data sheet has been developed for input to the data bank. This form is, of course, oriented to data on mental handicaps, and so is most useful in the collection of data on mental retardation, as well as some data on special learning disabilities and emotional disturbance.

The objective the ICIS is to obtain data on every mentally handicapped person identified in the state. If the ICIS continues to be developed to reach this objective, comprehensive data on mentally retarded children will be available to the Division of Special Education, as one of the participating agencies. (The ICIS is now being completed on every child evaluated by the school psychologists.) The possibility of expansion of the ICIS concept to include other types of handicaps could also be explored by Special Education, in an effort to move toward a central base of diagnostic data for the state.

The state residential and institutional schools providing special education programs currently do not report on children waiting for admittance and children newly identified as handicapped each year. In order to obtain this information Special Education could request that the schools monitor these data elements and submit them, through their state level administrators, to Special Education.

Data on children waiting for enrollment in private schools, and newly identified each year by private schools, is not available at the state level, but could be requested from each of the individual schools by the Division of Special Education.

Attrition

The Division of Special Education does not now collect data on attritions from public school programs. The mechanism to collect attrition data in the form needed for inclusion in the projection model would have to be developed by Special Education.

The Report of Special Classes form, previously described, does contain a column (M) that is used to indicate the date a child is withdrawn from a special

education class. The instructions for using this form state that while the form is submitted to Special Education at the beginning of each year, a copy is returned to the local district during the spring of the year, in order to record any changes that have occurred. If column M could be expanded to record basic reason for withdrawal from class, and the copy of the form could be returned again to Special Education at the end of the year, attrition data could be tabulated, by year of age and handicap type, and by reason for attrition. For data collection purposes, standard reasons (and codes) for attrition could be established, and could include return to regular education, mortality, and any other reasons in which special education administrators were interested.

The Director of Special Education feels that handicaps of vision, hearing, and mental retardation will probably be somewhat stable from one program year to the next, with a low rate of attrition. Handicaps of emotional disturbance and learning disabilities will probably show more improvement during the year, and should have a higher rate of attrition.

Because of the relatively large number of speech handicapped children served each year, attrition data could be collected, along with the other data elements previously described, through the Clinical Speech Services Report. This form, submitted at the end of each year, could be expanded to include a count of children by year of age, and by reason for attrition (completion of treatment, etc.). This data could then be combined, at the state level, with the attrition data collected on other handicaps, for inclusion in the projection model.

Attrition from home instruction programs would probably have to be monitored by Special Education on an individual basis. For example, teachers of homebound children could be asked to notify the sponsoring district when a student no longer requires service. At the end of the year, the districts could submit the names of these children to Special Education, and the age and handicap data could then be tabulated for inclusion in the projection model data base.

An alternative approach to the collection of public school attrition data could involve the Special Education Directors at the local level. At this time, approximately 35 Directors are assigned to areas covering approximately 75% of the school districts in the state. The bulk of all special education programs are located in these areas. These Directors could be asked to monitor the attritions from programs or waiting lists in their areas, and submit attrition data to Special Education each year. The data needed for model input would include counts of attritions, by year of age and handicap, and by basic reason for attrition, as previously discussed.

For the state residential and institutional schools involved in special education, attrition data could be requested each year along with the other data that would be requested for model input. These schools do maintain records

on children enrolled, and so they would have data on the disposition of those children who are released each year.

Attrition data on private school programs could also be requested from each of the schools on an individual basis, along with the other data elements that would be requested.

General Population Projections

No problem would be anticipated in obtaining projections, by single year of age, of the general child population in the state. The Individual School General Annual Report contains sufficient data on the total school population to be used by Special Education as a base for projections. Within the Department of Public Instruction, staff capable of population projection and analysis would be available to assist Special Education.

Trends in Enrollments

Data to plot enrollment trends in public school programs currently exists at the state level, being contained on the enrollment report forms previously described in this section. This enrollment data does not differentiate types of programs in which the children were enrolled (except for speech therapy and home instruction). If Special Education wanted to analyze the "mix" of program enrollments, the enrollment report forms would have to be modified to include some indication of the type of program in which each child was enrolled.

Enrollment trends for state and private residential and institutional schools could be plotted for each school by Special Education, based upon the enrollment data that would be requested from each school as input to the projection model.

Personnel/Pupil Contact Ratios

Personnel/pupil contact ratios for public school special education programs have been established by the Division of Special Education and are published in "The Rules of Special Education Explained." These legislated rules on ratios apply to special education teachers. Caseloads for other personnel (e.g., therapists, clinicians) are based upon professional prudence.

Contact ratios used by state and private schools serving handicapped children could be obtained from each of these schools on request.

Personnel

Data on numbers and types of special education personnel employed in public school programs is available at the state level. This data is contained on the Iowa Professional School Employees Data Sheet for all certified personnel. Instructional assignment codes for special education areas make it possible for Special Education to obtain printouts of personnel serving each handicap area.

Data on numbers and types of special education personnel employed in state and private residential and institutional programs could be obtained by Special Education on a request basis, along with the other data elements that would be requested from these schools for inclusion in the projection model.

V. PROCESSING POTENTIAL

Hardware

The Department of Public Instruction currently maintains an IBM 1401 computer within the Data Processing Division. It is planned, however, that an IBM 360-40 will be installed during 1970. This machine will have a FORTRAN compiler, and should have adequate storage capacity for projection model application.

In addition, the State of Iowa also maintains a large data processing facility which can be used, if needed, by the Department of Public Instruction to supplement the Data Processing Division capability.

Personnel

The Data Processing Division currently employs all personnel that would be needed to support the application of the projection model by Special Education. Staff includes systems analysts, programmers, and keypunch personnel. Additional analysts, programmers, and keypunchers employed by the State of Iowa are also available to the Department of Public Instruction. No problem would be anticipated in setting up, running, and analyzing results of the model.

Acceptance of Model Concept

The attitude toward the application of systems and data processing techniques to the handling of educational data is apparently very positive in Iowa. The Division of Special Education currently utilizes the automated data processing capability available through the Data Processing Division. Printouts of both program enrollments and special education personnel are now being obtained by Special Education.

The Division of Special Education is apparently anxious to apply more sophisticated planning and management tools to the task of state level program administration. The Director of Special Education is interested in the projection model and is anxious to obtain it for application by the Division.

VI. ADDITIONAL FACTORS

The State of Iowa is currently considering a plan whereby the 99 counties conducting public school programs would be reorganized into 16 regions.

All public school education in the state would then be administered through these regions. If this reorganization were to come about, special education programs would probably also be coordinated at a regional level, through regional directors of special education. It is felt that these regional directors would be in a position to coordinate the collection of data on special education programs and improve the flow of this data to the state level.

In response to the Vocational Education Amendments of 1968, a Special Needs Section has recently been created within the Pupil Personnel Services Branch. This section has been created to review applications, monitor funds, etc., for the vocational education programs for handicapped and deprived (10% of vocational education funds support handicapped; 15% support deprived). Because of the close relationship between vocational education and special education in this situation, the Division of Special Education is attempting to coordinate its program administration and reporting activities with the Special Needs Section. This coordination will probably be reflected in any future data collection systems developed by Special Education.

Iowa is one of the states involved in the Midwestern States Educational Information Project (MSEIP). This project has attempted to coordinate state education agencies in thirteen midwestern states in the identification of educational information requirements and in the development of systems to satisfy the requirements. The "ideal" data base that has been developed by the MSEIP contains data elements that would satisfy most projection model input needs. The MSEIP system is not yet being implemented in any of the states, however, and so cannot be relied upon to provide data needed for projection model utilization. As part of any future systems development, Special Education should check the status of the MSEIP for Iowa, in order to avert any possible duplication of effort in this area.

VII. RECOMMENDATIONS

For public school special education programs, data on enrollments, by age and handicapping condition, is currently received by the Division of Special Education. The enrollment report forms for classes do not differentiate the types of programs in which the children were enrolled (e.g., special class, cooperative class, resource room, etc.), and so if Special Education wished to analyze the "mix" of enrollments in various program types, the forms would have to be modified to allow for some indication of program type.

More and better data on the unserved handicapped child population should become available to Special Education as a result of greater involvement of special education personnel in the identification of the handicapped children at the local level (in conjunction with a special education mandate for both elementary and secondary levels). Superintendents of local districts are

responsible for the collection of data on children not yet enrolled in special education programs. If the format used for reporting these children contains data on both the year of age and handicapping condition of the children, this will satisfy the projection model input requirement for public school waiting list data. In addition, the Clinical Speech Services Report could also be expanded to collect counts of speech-handicapped children by single year of age, waiting to be served.

Data useful in correction and validation of estimated annual incidence rates could be collected in conjunction with the enrollment and waiting list data. As described in the Data Element Evaluation section, enrollment report forms could be modified to allow for indication of children who were diagnosed for the first time as handicapped each year, as well as for indication of intrastate transfers each year (children already diagnosed as handicapped who transferred from one district to another with the state). Special education waiting lists could also be designed to allow for indication of children newly diagnosed, and any intrastate transfers.

For the collection of data on attritions from special education programs, Special Education could again utilize the enrollment report forms. If the report of Special Classes forms were returned to local districts in the spring of each year, local personnel could indicate the children who withdrew from the classes during the year by reason for withdrawal, and then return the forms to the state level for tabulation. The Clinical Speech Services Report could also be expanded to include counts of children who complete or terminate services, by year of age and by basic reason. Data on attritions from homebound programs would probably have to be requested on an individual basis from local districts, where teachers would report attritions from the homebound programs to the sponsoring district.

As discussed in the Data Element Evaluation section, the Division of Special Education does not anticipate any problem in obtaining projections of the general child population in the state. Data to plot and analyze enrollment trends should also be available within Special Education, although current enrollment report forms would have to be modified if Special Education wanted to analyze the program "mix" in greater detail.

Personnel/pupil contact ratios have been established by Special Education, and counts of the various types of special education personnel are available to Special Education through the automated personnel information system within the Department of Public Instruction.

The Division of Special Education already utilizes the automated data processing capability of the Data Processing Division. In general, the data elements discussed here for inclusion in the projection model involve modification and expansion of the existing reporting system. It appears, therefore, that the

tabulation of the model data elements could be handled through automated data processing in much the same manner that current data elements are being handled. Special Education should be able to obtain tabulations, by year of age and handicapping condition, of enrollments, waiting lists, annual incidence counts, and attritions.

For the collection of the required data elements from the residential and institutional programs administered by the Board of Regents and the Department of Social Services, a liaison could be established between Special Education and the administrators of these programs at the state level. Special Education could develop forms and instructions to be used by each of the schools in reporting the needed data elements, on a annual basis, to the state level administrators, who could then forward the reports to Special Education. For the collection of the needed data elements from private school programs for handicapped, forms and instructions could be provided to each of these schools on an individual basis. In regard to both the state and the private schools, Special Education cannot require that data be reported; they can only request that it be reported for inclusion in the statewide projection model data base. Good cooperation would be anticipated in this effort, however.

VIII. RESOURCE REQUIREMENTS—MANPOWER

In light of the recommendations in the preceeding section of this report, additional manpower would be required by the Division of Special Education for the development of the data base that would be needed to support the projection model. The bulk of the work required would relate to the modification and expansion of the basic information flow that has already been initiated, or is being planned in conjunction with the special education mandate.

Approximately 2 1/2 man-months, over a two year span, of a qualified systems analyst's time would probably be required for model implementation. Tasks would include detailed analysis of existing systems; modification of these systems to accommodate additional data elements; modification of data collection forms and procedures, and development of new forms and procedures for use by public schools, state schools, and private schools. One man-month of programming work would be required. Other tasks, including coordination of the other state and private agencies that would contribute data, and some "trouble-shooting" of the new systems and procedures at the local level, could probably be handled in 3 man-months of effort by state level staff employed by the Division of Special Education. System implementation should be accomplished in two months.

In addition, a minimum of 1/2 man-month per year of systems analysis/programming time, 1 1/2 man-month per year of Special Education staff time, and 1/2 man-month per year of clerical time, would probably be required for ongoing maintenance of the information flow and projection model.

IX. PERSONS INTERVIEWED

Mr. Richard E. Fischer, Director
Division of Special Education
Pupil Personnel Services Branch
Office of Instruction
Department of Public Instruction

Mr. J. Frank Vance, Assistant Director
Division of Special Education

Mr. Herbert Lange, Project Director
Iowa Interagency Case Information Service
Bureau of Mental Retardation
Department of Social Services

Mr. Paul V. Porter, Director
Planning and Development
Board of Regents

Mr. William Perry, Director
Data Processing Division
Systems Branch
Office of Administration
Department of Public Instruction

Special Education Consultants within the Division of Special Education:

Consultant	Area of Service
Richard Winter	Emotionally Disturbed
Frank King	School Psychology Learning Disabilities
Don Pickering	Visually Handicapped Physically Handicapped
Stan Dublinske	Speech Services
Jerry Caster	Mental Retardation

TABLE 1
SUMMARY OF DATA DEVELOPMENT STATUS
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DATA ELEMENTS			PUBLIC SCHOOLS: CURRENT STATUS	PUBLIC SCHOOLS: METHOD OF DEVELOPMENT	PUBLIC SCHOOLS: SOURCE OF DATA	RESIDENTIAL/INSTITUTIONAL SCHOOLS: CURRENT STATUS	RESIDENTIAL/INSTITUTIONAL SCHOOLS: METHOD OF DEVELOPMENT	RESIDENTIAL/INSTITUTIONAL SCHOOLS: SOURCE OF DATA	PRIVATE SCHOOL DATA
NUMBER OF CHILDREN IDENTIFIED AS NEEDING SPECIAL EDUCATION	ENROLLED	AGE	Available at state level		Current Enrollment Report forms	Data elements do not now exist at state level in form needed. Data does exist at each of the schools.	Data could be requested from each school by state level administrators, and forwarded to Special Education. Forms and instructions to record data may be provided to schools by Special Education.	Pupil and personnel records maintained by individual state schools.	No data on private school operations is available at the state level. Data for inclusion in projection model could be requested from each individual school by Division of Special Education.
		HANDICAPPING CONDITION							
		EDUCATION PROGRAM	Reported by class only	Could be requested from local programs	Modified enrollment report forms				
	ON WAITING LIST	AGE		Districts could be asked to report children by age and handicap	Reports of children not served-required by mandate				
		HANDICAPPING CONDITION							
NUMBER OF CHILDREN MOVING INTO AND OUT OF IDENTIFIED HANDICAPPED CHILD POPULATION	NEWLY DIAGNOSED AS NEEDING SPECIAL EDUCATION	AGE	Not now available at state level	Enrollment and waiting list report forms could be used to indicate children diagnosed or transferred. Attritions could also be indicated on enrollment report forms when returned to districts	Modified enrollment report forms, and district waiting lists				
		HANDICAPPING CONDITION							
	INTRA-STATE TRANSFERS	AGE							
		HANDICAPPING CONDITION							
	ATTRITION FROM THE IDENTIFIED HANDICAPPED POPULATION	AGE							
		HANDICAPPING CONDITION							
		REASON							
YEARLY PROJECTIONS OF THE CHILD POPULATION, BY AGE			Basic data for projections exist	Could be made by sp.ed. and other PPI staff	General Annual Report				
DATA USED TO SIMULATE SPECIAL EDUCATION	EDUCATION PROGRAM MIX TRENDS		Data not available in detail	Could be requested from local programs	Modified enrollment report forms				
	TYPES OF PERSONNEL AND PERSONNEL/PUPIL CONTACT RATIOS	TARGET GROUP	Available at state level		Published in: Rules of Special Education Explained				
		EDUCATION PROGRAM							
OPTIONAL: NUMBER OF SPECIAL EDUCATION PERSONNEL EMPLOYED, BY TYPE					Iowa Professional School employees data sheet				

KANSAS STATE ANALYSIS REPORT

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The research reported herein was performed pursuant to Contract No. OEC 0-9-08928-0710 with the Bureau of Education for the Handicapped, Office of Education, U.S. Department of Health, Education, and Welfare. Contractors undertaking such projects under Government sponsorship are encouraged to express freely their professional judgment in the conduct of the project. The points of view or opinions stated do not, therefore, necessarily represent official Bureau position or policy.

KANSAS STATE ANALYSIS REPORT

I. INTRODUCTION

Sponsored by the Bureau of Education for the Handicapped (BEH), Operations Research, Inc. (ORI) has developed a mathematical model that provides the framework for systematic consideration and evaluation of major elements contributing to the determination of special education manpower needs. The model has been designed for application by state special education agencies and, when fully implemented, will assist each state in the systematic prediction of its own special education manpower needs, based upon individual state educational characteristics. The model will simulate present and future manpower needs under varying assumptions regarding changes in personnel/pupil contact ratios, the educational program mixes, the child participation rate, or any combination of these variables.

Following development of the model, a visit was made to each of the 50 state special education agencies in order to familiarize the states with the objectives of the program and to conduct a survey of current state information flow procedures. The purpose of the survey was to review and analyze the capability and potential for utilization of this model by the state agencies responsible for the education of handicapped children. The survey included an analysis of:

a. The capability of existing information flow processes to provide the necessary model input data

b. The existing automatic data processing capability to process the model program

c. The special education staff capability and desire to utilize the model.

This report presents the findings of the survey in the State of Kansas, and contains recommendations pertaining to the establishment of information flow procedures for model utilization as well as to the improvement of general information availability for special education program management. The data development status is summarized in Table 1 at the end of this report.

II. SUMMARY

In Kansas, public school special education is administered at the state level by the Division of Special Education within the State Department of Education. While the Director of Special Education felt that his division was already capable of planning and projecting needs for programs and manpower within the constraints of funding available in the state, he did express a willingness to cooperate as much as possible with the objectives of BEH on this project.

The Special Education Division currently receives data on children enrolled in public school special education programs. The forms now used in the collection of this data could be modified to collect some of the data elements needed to satisfy input needs of the projection model. New formats could be developed to collect other needed data elements not now available at the state level.

Data from public schools that do not provide special education programs or employ special education personnel could only be obtained by Special Education on an annual survey basis.

The residential school programs for blind and deaf children are currently administered by the State Board of Regents, but will be administered by the State Department of Education within the next year. Data elements needed for model input can be obtained from these two schools by Special Education on a direct request basis.

The institutional school programs for mentally retarded and emotionally disturbed children are administered by the Division of Institutional Management within the State Department of Social Welfare. While needed data elements on these programs are not now available at the state level, they do exist at the school level, and could be collected by the Director of Institutions and provided to Special Education for inclusion in the model data base. The Director of Institutions would probably require some support or assistance from Special Education in setting up and maintaining the data collection procedures.

Data on private schools serving handicapped children is not now available at the state level. To obtain this data for model input, the schools could be surveyed by Special Education on an annual basis.

Special Education currently handles and tabulates all report data manually. Automatic data processing (ADP) has not been used in the past, and so application of the model in Kansas would require that Special Education establish an interface with the state-level computer and data processing facility, for purposes of running the model, and possibly for tabulation of the input data for the model.

III. RESPONSIBILITIES FOR SPECIAL EDUCATION

Public school education in the state of Kansas is administered, at the state level, by the State Department of Education, headed by a Commissioner of Education. The Commissioner is appointed by an elected State Board of Education. Within the Department of Education is a Division of Special Education, headed by a Director, and manned primarily by Educational Consultants responsible for supervision of specific handicap areas.

Special Education is responsible for providing aid to special education programs conducted in public schools. It is intended to support local districts in organizing special services and instructional programs, and in providing special auxiliary personnel.

The state residential schools for handicapped are the Kansas State School for Blind, and the Kansas State School for Deaf. These two schools have been administered by the State Board of Regents, but are being transferred to the Department of Education within the next year (by 1971).

The State Department of Social Welfare, through its Division of Institutional Management, administers the state institutional schools for mentally retarded and emotionally disturbed children. There are basically nine institutions involved with handicapped children: three schools for retarded; three schools for emotionally disturbed; two industrial schools for delinquent children, some of whom are emotionally disturbed and retarded; one diagnostic receiving home for children, providing short-term diagnostic and special education service. Of the six institutional programs for mentally retarded and emotionally disturbed, four are being conducted by a special education staff from the local public school districts. The programs at the two industrial schools are staffed by regular (not special) education personnel from the local school districts. The responsibility for administration of the programs, however, remains with the individual institutions.

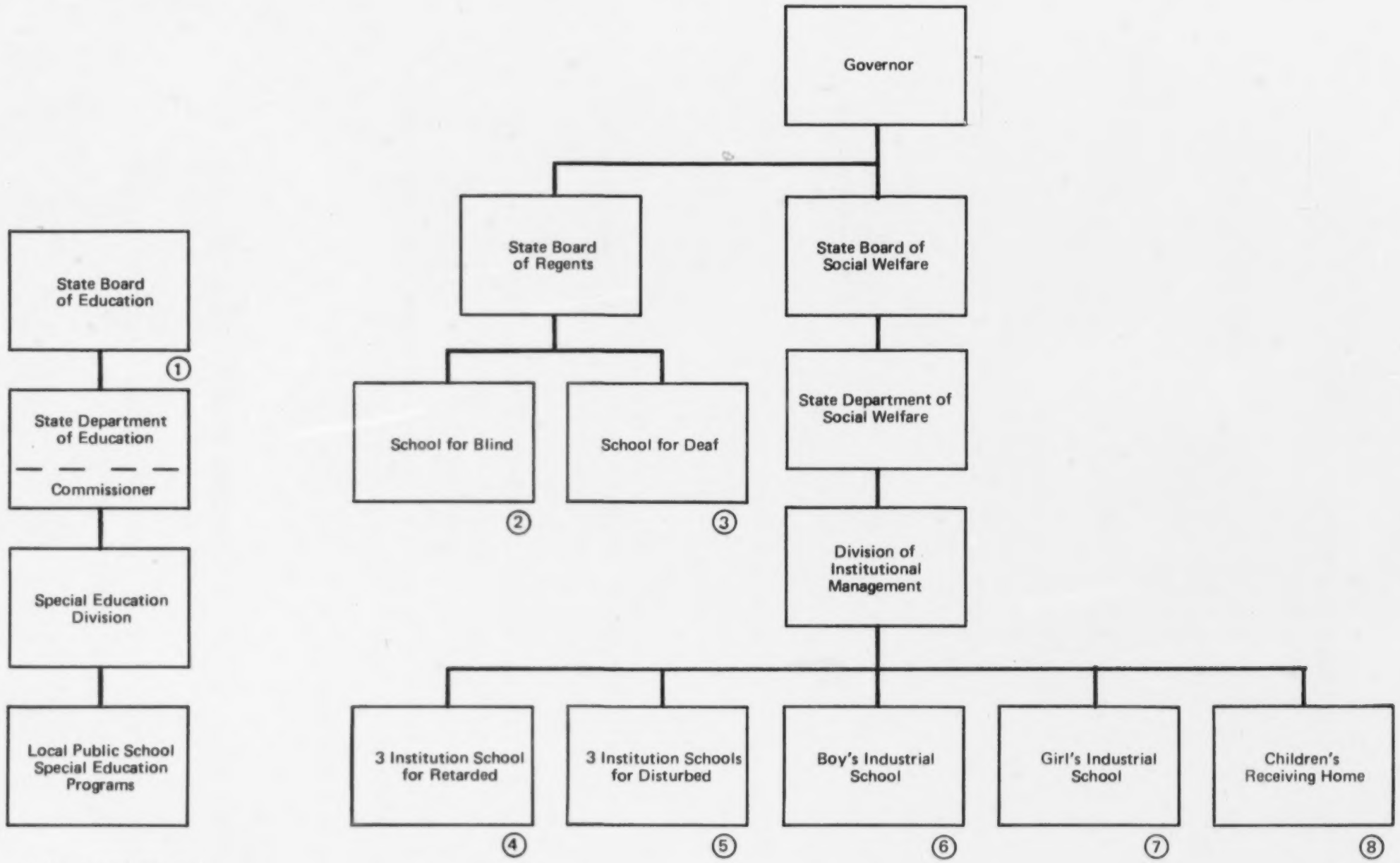
In addition to the special education provided by the state, a few private schools are also serving handicapped children. Private schools are currently serving crippled, mentally retarded, and emotionally disturbed children.

An informal chart illustrating the organization of state sponsored special education programs is shown in Figure 1 on the following page.

IV. DATA ELEMENT EVALUATION

Enrollment

For special education programs operating in local public schools, data on program enrollments is currently available at the state level for most handicapping areas. At the beginning and again at the end of each school year, an Annual Report of Classes is received for visually handicapped, emotionally disturbed, learning disabilities, and orthopedically handicapped.



1. Membership elected
2,3. Will be transferred to Department of Education by 1971
4. Some teaching staff provided by local public school districts
5. All teaching staff provided by local public school districts
6,7. Teachers out of regular education programs of local public school districts
8. Short - term treatment center

FIGURE 1. ORGANIZATION OF EDUCATIONAL SERVICES FOR HANDICAPPED CHILDREN IN KANSAS

In addition, an Annual Report of Classes for Mentally Retarded Pupils and Class Enrollment-Hard of Hearing are received once each year. All of these forms, color-coded by handicapping conditions, list individual children by name and age, and would satisfy the enrollment data input needs of the projection model. Form 136-C, Annual Report of Classes for Visually Handicapped, and Form 131-G, Class Enrollment-Hard of Hearing are typical of these Forms (See Section X, pp. D16-20 and D16-21).

For speech handicaps, the Annual Program Report, Form 131-F (see Section X, pp. D16-22, and D16-23) is received each year from each speech clinician. On this form, total students served during the year are recorded by grade ranges, K-3, 4-6, 7-9, 10-12. If this form could be modified to record students by individual grade (which could be converted to year of age), and/or by single year of age, the enrollment data needed for speech handicaps would also be available for inclusion in the projection model.

Data on children served through homebound programs is not received in any aggregated form. Each homebound child is reported on an individual basis each year. Prior to instruction beginning for a child, Special Education receives an Application for Approval of Homebound Instruction (Form 120), indicating, among other things, the child's date of birth and handicapping condition. A copy of this form is contained in Section X, p. D16-24, of this report. By reviewing these forms, Special Education could tally the children, by age and handicap, for whom homebound instruction was approved each year. Counts of these homebound children could then be added to the other enrollment data for inclusion in the projection model data base.

Except for the homebound programs, data received at the state level does not differentiate types of educational programs in which the children are served (e.g., day special class, cooperative class, resource room, etc.). The concentration of special education received by each child is, in general, commensurate with the severity of the handicap. Children generally move on a continuum of service from full-time day special class through less concentrated program types, until fully integrated into regular education classes. If Special Education would want to identify specific types of programs for projection purposes, the enrollment report forms previously described could be modified to allow for indication of the type of program in which each child was enrolled.

It should also be noted that the enrollment report forms do not request year of age data in a standard or consistent manner. Some request birthdate, some request chronological year of age, some specify a June 1 cutoff date to determine age. If these forms are used to tabulate total enrollment data, either manually or automatically, consideration should be given to a standardized indication of age on all forms.

Unserved Handicapped Child Population

Data that would be needed by the projection model on children diagnosed as handicapped but not yet enrolled in special education programs is not

now available at the state level. Some data on the number of children waiting for service is reported to the state-level consultant for speech and hearing, but there is, otherwise, no consistent pattern of reporting "waiting list" data for the other handicap areas. The Annual Report forms previously described for emotionally disturbed, learning disabilities, and orthopedically handicapped programs request, in a statement at the bottom of the form, that teachers attach a list of children, by name and approximate age, known to them as handicapped but not yet enrolled in a special education program. Because teachers have not been completely reliable in submitting the enrollment forms and attached waiting list data, an accurate base of waiting list data has not been developed.

There were approximately 80 School Psychologists, 4 School Social Workers, and 14 City or County Directors of Special Education during the 1968-69 school year. Approximately 300 school districts receive school psychological services, and the districts covered by the administrative and diagnostic personnel would be in a better position to know special education program needs than those districts where there is no such personnel and/or no programs. Diagnostic and program coverage is, of course, concentrated in the more populous metropolitan areas, and so it appears that if data were to be collected on these areas, it would be fairly representative of the state overall.

One approach to the collection of waiting list data on all handicaps could involve the creation and introduction of a simple form to be attached to the various annual enrollment report forms described in the previous paragraphs on enrollment. This form could be designed to list children diagnosed as handicapped but not yet enrolled in a program, by year of age and by type of handicap. Where there is more than one special education teacher in any given school, the teachers could be asked to coordinate the report forms on children waiting, in order to eliminate duplication in reporting those children. Data on children known to need either school programs or homebound instruction could be requested on this form.

While this would provide data on handicapped children known to special education teachers, handicapped children in schools without special education programs or services would not be reported. In order to supplement the waiting list data submitted by the special education field personnel, Special Education could survey the administrators of the schools not conducting special education programs, (possibly on an annual basis) requesting that they provide counts of children, by year of age and by handicap, who have been identified as handicapped and who need special education. Because of the many hundreds of administrators that would be involved, a survey, as opposed to an on-going reporting procedure, would probably be satisfactory for obtaining data from these schools.

No data on annual incidence of handicaps is being collected by Special Education. Some individual special studies of incidence have been performed by the staff, but this is not a regular procedure. National statistics on handicaps are relied upon in most instances to determine the handicap population in the state. Special Education has published "Anticipated Incidence of Exceptional

Children in Kansas by Counties," based upon 1960 census data (see Figure 2). In addition, estimates of handicapped population, personnel needed, and funds needed are made for each Title VI State Plan application. The special education staff at the state level feels that, in general, the national statistics applied to Kansas population provide a reasonable indication of incidence of handicaps in the state. It should be noted here that the use of national rates may be acceptable as a starting point in the estimation of annual incidence of handicaps, but these rates should be validated as much as possible by applying actual incidence counts, special studies, etc., to the estimations.

In order to obtain actual incidence data for validation of current incidence estimations, and for inclusion in the projection model, Special Education could request that the school diagnostic personnel, described earlier in this section, maintain a count of all children newly diagnosed by them as handicapped each year. If counts of children newly diagnosed as handicapped, by year of age and handicap, could be obtained from each diagnostician, the annual incidence base that would be needed for the projection model would probably become more accurate with each yearly application of actual diagnostic data. School psychologists and social workers currently submit a School Psychological Service Program Report Form 130-C each year (see Section X, p. D16-25, of this report), and a form indicating number of handicap diagnoses, by year of age and handicap, could probably be attached to this report.

In addition to school diagnostic personnel, diagnosticians external to the school system are utilized in some cases, essentially in diagnoses of physical handicaps. In the area of speech and hearing handicaps, a multi-copy form and a handling procedure has been developed. This form flows from the referring school to physician or audiologist, back to the school, and finally to the state level. A copy of Form 137-69 appears in Section X, p. D16-26, of this report. A diagnostic form similar to this is also used for visual handicaps. For other handicap areas utilizing outside diagnosticians, schools are supposed to receive feedback on results of diagnoses of students.

Schools obtaining reports of outside diagnoses of students could be asked to communicate data on these diagnoses (year of age, type of handicap) to the school psychologist or social worker assigned to the school. This data could then be added to the report on newly diagnosed children (described in previous paragraphs) that could be submitted to Special Education each year.

In addition to children newly diagnosed as handicapped each year by school and private diagnosticians, it is possible that public schools and special education programs will acquire children who have been diagnosed or identified as handicapped previously in other school districts or other parts of the state. Rather than reporting these children again as newly diagnosed, which could distort the annual incidence counts in the state, these intrastate transfers, when they occur, should be reported separately. No mechanism exists at this time to monitor intrastate transfers among special education programs. Data on such transfers among schools and special education programs in the state could be obtained by Special Education at the same time that data on annual incidence

FIGURE 2.

Anticipated Incidence of Exceptional Children in Kansas by Counties

(Data in second column from U. S. Census—1960)

County	Children 5–19 Yrs. Old, 1960	Mentally Retarded 2.0%	Gifted 2.0%	Speech Defective 6.0%	Emotionally and Socially Maladjusted 2.5%	Impaired Hearing and Deaf 0.5%	Impaired Vision and Blind 0.2%	Other Physically Handicapped Including Crippled 1.5%	Total
Allen	4,184	84	84	251	105	21	8	63	616
Anderson	2,358	47	47	142	59	12	5	35	347
Atchison	5,702	114	114	342	143	29	11	86	839
Barber	2,440	49	49	146	61	12	5	37	358
Barton	9,195	184	184	551	230	46	18	138	1,351
Bourbon	3,873	78	78	232	97	19	8	58	570
Brown	3,247	65	65	195	81	16	6	49	477
Butler	10,684	214	214	641	267	53	21	160	1,570
Chase	1,017	20	20	61	25	5	2	15	148
Chautauqua	1,389	28	28	83	35	7	3	21	205
Cherokee	5,928	119	119	356	148	30	12	89	873
Cheyenne	1,246	25	25	75	31	6	3	19	184
Clark	851	17	17	51	21	4	2	13	125
Clay	2,633	53	53	158	66	13	5	40	388
Cloud	3,724	75	75	223	93	19	8	56	549
Coffey	2,085	42	42	125	52	10	4	31	305
Comanche	847	17	17	51	21	4	2	13	125
Cowley	9,813	196	196	589	245	49	20	147	1,442
Crawford	8,742	175	175	525	219	44	18	131	1,287
Decatur	1,467	29	29	88	37	7	3	22	215
Dickinson	5,279	106	106	317	132	26	11	79	777
Doniphan	2,597	52	52	156	65	13	5	39	382
Douglas	12,085	242	242	725	302	60	[illegible]	181	1,776
Edwards	[illegible]	28	[illegible]	[illegible]	35	[illegible]	[illegible]	[illegible]	206
Elk	[illegible]	23	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	170
[illegible]	[illegible]	137	[illegible]	[illegible]	171	[illegible]	[illegible]	[illegible]	[illegible]
Ellis	[illegible]	42	42	[illegible]	53	[illegible]	[illegible]	[illegible]	[illegible]
Trego	1,600	32	32	96	40	8	[illegible]	24	[illegible]
Wabaunsee	1,685	34	34	101	42	8	3	25	247
Wallace	610	12	12	36	15	3	1	9	88
Washington	2,733	55	55	164	68	14	6	41	403
Wichita	856	17	17	51	21	4	1	13	124
Wilson	3,366	67	67	202	84	17	7	51	495
Woodson	1,296	26	26	78	32	7	3	19	191
Wyandotte	49,636	993	993	2,978	1,241	248	99	745	7,297
Totals	583,560	11,671	11,671	35,014	14,589	2,918	1,167	8,753	85,783

Because of multihandicaps the total number of exceptional children and percentage incidence is higher.

DIVISION OF SPECIAL EDUCATION

State Department of Public Instruction

120 East 10th,

Topeka, Kansas 66612

Reprinted February 1968

(REPRODUCED FROM STATE FORM)

would be obtained. The form to report annual incidence, as described above, could be designed in such a way that counts of handicapped children who transfer into public schools from other programs and areas in the state could also be recorded on the form. For example, if a matrix form were used to record all children newly identified, by handicap type and year of age, the cells on the matrix could be split, with one half used to record counts of newly diagnosed children, and the other half used to record counts of handicapped children, previously diagnosed, who transfer into a program or school.

Here again, it is possible that schools not having special education programs or services will identify handicapped children during the year, or will receive intrastate transfers of handicapped children during the year. If Special Education were to survey the administrators of these schools to obtain waiting list data, any data that existed on newly identified handicapped children, whether newly diagnosed are previously diagnosed and transferred in, could also be requested from these schools.

Attrition

Data on attrition from public school special education programs is not now available at the state level. The mechanism to collect the attrition data needed for inclusion in the projection model would have to be developed by Special Education.

The Annual Program Report forms submitted by speech clinicians each year contain data on number dismissed and number dropped, moved or withdrawn from the program during the year. This form would satisfy model input needs if the attrition data requested could be expanded in such a way that the counts of children who leave the program would be specified by year of age, and by the specific reason for learning, that is, return to regular education, mortality, or other reasons. A simple matrix reflecting years of age and selected reasons for attrition could be added to the form, for example, and this would satisfy attrition data needs of the model.

The Annual Report and Class Enrollment forms used to report enrollment for other handicap areas could also be used to collect data on attrition from the public school programs. Each of these forms contains a column to be used by teachers for recording their recommendations for the next school year for each student. The use of this column could be extended to record attrition reasons for those children who leave the programs. Possible reasons for attrition could be standardized (and perhaps coded) in the instructions for using the forms, so that teachers could more accurately indicate the attrition reasons. The eventual tabulation of the attritions at the state level would also be facilitated by the standardization of reasons.

At the close of each school year, Special Education receives a Claim for Reimbursement for Teaching Homebound Children (Form 121) for each child served in a homebound program. A copy of this form is contained in Section X, p. D16-27, of this report. The form allows the teacher of the child to

recommend return to regular education, continuation or discontinuation of home instruction, and additional remarks. The number of attritions from homebound instruction, by age and handicap, could be determined by first reviewing the reimbursement claim form for those children attriting, and then referencing the Application for Approval of Homebound Instruction form for each attrition, in order to obtain the age and handicap type.

General Population Projections

Within the State Department of Education, support in the area of research and statistics on school operations is provided by the Statistical Services Section of the Division of Central Administration. Projections of the general child population, by year of age, for input to the projection model, could be requested from Statistical Services by Special Education. The Annual Report received from each school district each year contains both general school census by age, and total enrollments by grade, and so no problem would be anticipated in obtaining the needed projections for model application.

Trends in Enrollments

Data to plot enrollment trends in public school special education programs as a whole exists at the state level on the enrollment forms now being received. As explained earlier in this report, types of programs in which children are enrolled (class, resource room, etc.) are not currently differentiated, and so the "mix" of program types operating in the state could not be determined, or projected, unless some indication of program type was added to the enrollment report forms.

Personnel/Pupil Contact Ratios

Personnel/pupil contact ratios for public school special education programs have been established by Special Education and are published in a series of administrative guides and standards which cover each handicap area.

Personnel

Data on the number and types of special education personnel employed in public school programs is currently compiled at the state level. Special Education publishes a annual listing of all administrators, directors, teachers psychologists, etc., and so personnel data to calculate current manpower gaps, in conjunction with the projection model, would be available.

In addition, the Division of Central Administration within the Department of Education is introducing a new Principals' Certified Personnel Report during the 1970 school year. This automated personnel reporting system will collect detailed data on certification, degrees, experience, and current assignments. Codes for special education programs have been developed,

and so printouts of certified special education personnel should be available to Special Education upon implementation of this system. It is planned that data will be collected on all certified educational personnel in the state, and data on staff of private schools and other state schools should be included. Data on non-degreed, non-certified, or para-professional personnel is not now being collected, but could probably be added at some point in the future, if a requirement for such data is recognized.

Data from State Residential Schools

The State Board of Regents currently administers the residential schools for blind and deaf in the state, but these schools will be shifted to the Department of Education by 1971. Currently there is little data on the operations of these schools at the state level, but the data that would be needed for inclusion in the Manpower Requirements Projection Model is available at each school, and could be submitted to Special Education upon request. Though the data elements are available, they are not currently being monitored or tabulated. To facilitate this task, and to ensure consistency of data reported, Special Educa- could develop appropriate forms and instructions to be used by each school in responding to requests for the specified data elements.

Because the schools will be administered by the Department of Education in the future, an on-going flow of information between the schools and the state level is anticipated, which should facilitate the collection of the data elements needed for model application.

Data from State Institutional Schools

The State Department of Social Welfare administers, at the state level, three schools for severely mentally retarded, and three schools for emotionally distrubed children. In addition, two industrial schools serve emotionally disturbed children, and one diagnostic receiving home also serves emotionally disturbed children on a short-term basis. Because of the short-term nature of the service provided by the receiving home, data from the home would probably not be required for inclusion in the projection model data base. In most cases, children served by the home would probably be served again in longer-term programs, and would be reported at that time.

For these state institutional schools, data elements useful as input to the projection model are not now available at the state level. They do exist at the school level, however, and could be monitored by school administrators and submitted, upon request, to the Director of Institutions. He, in turn, could forward the data to Special Education.

The status of data elements that could be requested is as follows:

- Enrollment data, by age and handicap, could be available based upon current records.
- Waiting list data, by age and handicap, could be developed, based upon application forms submitted to each institution. Application forms

contain sufficient data to determine need for special education. In addition, estimates of other children diagnosed as handicapped but not yet enrolled in a program could be made by surveying the 25 Mental Health Centers in the state.

- National statistics have been relied upon to estimate annual incidence. Schools could be asked to tally the number of children, by age and handicap, newly identified as handicapped each year. They could also be asked to tally the number of intrastate transfers (as previously defined) into the institutions each year.
- Good records are kept on terminations from the institutions, and so counts of attritions, by age and handicap, and by basic reasons, could be obtained. Records show where children plan to go upon discharge, although no follow-up is conducted to confirm where children do go.
- Sufficient data exists in current records and reports to plot enrollment trends for institutional schools.
- Personnel/pupil contact ratios are set by each institution on an individual basis (set by clinical superintendents, hospital superintendents, etc.). Ratios recommended for use could easily be determined by surveying schools.
- Titles and counts of all personnel are currently reported to the state level, but special education program personnel, other than teachers, cannot be differentiated from total institutional personnel. If accurate counts of program personnel are needed to calculate state manpower gaps, these counts could be requested from the schools. In addition, counts of certified teachers at the schools should be available through the Department of Education's automated personnel reporting system (previously described), in that the bulk of these teachers are, in fact, provided to the institution schools by local school districts.

The Director of the Division of Institutional Management, and his Administrative Assistant, were very cooperative in providing information on institutional special education programs. All data on institutions that would be

needed by Special Education for inclusion in the projection model could be requested from this Director of Institutions, and he, in turn, could pass the request on to the individual schools, and coordinate the collection of the data from them. The Director did express concern, however, that the personnel needed to set-up and maintain an on-going data reporting system (as opposed to one-time surveys of institutions) were not now available within the Division. If data from state institutional schools is wanted for inclusion in the projection model, Special Education should meet with the Division of Institutional Management to determine the extent to which additional support would, in fact, be required by the Division, in order to respond to the model input data needs. One type of support provided by Special Education should involve the development of forms and instructions which could be used by the institutional schools in responding to the requests for the model input data.

Data from Private Schools

Because the private schools for handicapped children in the state are relatively few in number, the data on private school operations, needed as input to the projection model, could probably be requested from the schools on an individual basis. Here again, forms and instructions to be used by the schools in supplying the data would have to be provided by Special Education.

V. PROCESSING POTENTIAL

Hardware

Data processing services for all state level departments is provided by the Kansas State Department of Administration. The computer facility currently maintained by the Department houses an RCA Spectra 70 having 64K capacity. This machine has a FORTRAN compiler and should be adequate for projection model application.

Personnel

The personnel necessary for implementation, operation, and analysis of the projection model are present within the Department of Administration. In addition, the Department of Education, Division of Central Administration, also employs some data processing personnel. Central Administration currently employs keypunchers, and plans to acquire a programmer and a systems analyst. It is anticipated that the Central Administration systems personnel would be capable of handling the projection model for Special Education.

Acceptance of Model Concept

At this time, Special Education does not utilize automated data processing. Data tabulation for record-keeping purposes has been handled manually by state level staff. Determination of the state handicapped population and future manpower needs has been accomplished based upon national statistics, census data, special studies. Although the Director of Special Education felt that he and his staff were already capable of documenting the

special education manpower needs within the limitations of funding available to them to develop programs and manpower, he did express interest in the capability of the model, and expressed a willingness to cooperate with BEH in the development of more and better data. The Director was very cooperative in providing information on the operation of public school special education programs.

VI. ADDITIONAL FACTORS

At one time, a census of handicapped children was conducted in Kansas, but the results of the census were inaccurate and not usable, and so the census effort has been discontinued. A census of regular school population is now being conducted, but it provides little data on handicapped children.

More data will be available at the state level on programs for the mentally retarded, following the implementation of the recent special education mandata in this area.

There is, at the state level, some indication of opposition to requesting that local programs submit diagnostic data to the state level. If is felt that this request could foster a tendency, at the local level, to apply "labels" to children who may or may not be seriously handicapped. While the staff is sensitive to the dangers of labeling or categorizing children, they are also aware of the value of better data on the handicapped population. It appears that the design of any new attempt to collect data from local programs will take the question of "labeling" children into consideration.

The systems and data processing work now being done within the Department of Education is coordinated by the Director of the Midwest Project. This work is being done in conjunction with the Midwestern State Educational Information Project (MSEIP). The MSEIP is a demonstration project which has attempted to coordinate a 13-state region in terms of identification of educational information needs, required data bases, systems, etc. If, in fact, an MSEIP system were to be adopted by the Department of Education, much of the data needed as input to the projection model would probably be available through that system.

VII. RECOMMENDATIONS

Special Education currently receives annual public school enrollment report forms and applications for home instruction forms which identify handicapped children (except speech handicaps) by year of age and type of handicap. If the Annual Program Report (Form 131-F) could be modified to record counts of speech handicapped children by year of age, all age-handicap data needed for input to the projection model would then be available.

Except for homebound programs, current enrollment report forms do not differentiate types of programs in which children are served. For Special Education to be capable of determining the mix of programs as part of projection

model application, these enrollment report forms would have to be modified to allow for indication of specific types of programs in which the children were enrolled.

Further, if the aforementioned forms are to be used in the tabulation of age data for all children served, the manner in which age is indicated on the forms should be standardized from one form to another as much as possible.

In order to obtain data on children diagnosed as needing special education but waiting to be enrolled in a program, a new form could be attached to the enrollment report form, to be maintained and submitted by school special education personnel. This form could list all children waiting for a program, by year of age and type of handicap.

In order to obtain annual incidence data, which could be applied to the modification and/or verification of current estimated state incidence rates, special education diagnostic personnel could be asked to maintain a count of children newly diagnosed each year, by age and handicap type. This data could be recorded, for example, on a simple matrix form, and submitted to Special Education at the end of each year. This same form could also be used to record intrastate transfers of handicapped children among schools or programs. Counts of such transfers of previously diagnosed children should be differentiated from counts of newly diagnosed children, to avoid distorting the annual incidence rates.

In order to obtain data on attrition from special education programs, the annual enrollment report forms could again be utilized. As previously described in the Data Element Evaluation section, each of these forms could be extended to include reasons for each child's attrition. In addition, the reimbursement claim form for homebound children could also be utilized to determine reasons for attrition of children from home instruction.

The establishment of the data flow and data bases needed to support the projection model will depend upon the reliability and consistency with which the local level special education personnel submit the aforementioned report forms. Special Education, through its consultants, and through its correspondence with local program administrative and teaching personnel, could stress the need for, and value of, this data.

In addition, the timing of the receipt of the report forms could also be examined by Special Education. While some of the annual report forms have been submitted at the beginning of the year, and some at the end of the year, a schedule for submission of all of these reports at one, or perhaps two times during the year, could facilitate the tabulation of the data elements needed for model input.

As described in the Data Element Evaluation section of this report, Special Education would be able to develop the other elements of data that would be needed to support the projection model. These include the general population projection data, data to plot enrollment trends and program mixes,

data on numbers and kinds of special education personnel and the contact ratios followed by them.

Many public schools not having special education programs or personnel do not submit any data on handicapped children to Special Education. If Special Education would like to obtain additional data to supplement the data normally received each year, a survey of the administrators of these schools could be conducted to determine whether they have identified any handicapped children. Because of the number of schools that would be involved, this could only be considered on a survey basis.

For the collection of data on the operation of the School for the Blind and the School for the Deaf, each of these residential schools could submit the needed data elements directly to Special Education on an individual request basis.

For the collection of data on the operations of the programs administered by the Department of Social Welfare, Special Education could establish a liaison with the Division of Institutional Management, probably the Director of Institutions. This Director could be relied upon to coordinate the collection of the needed data from each of the institutional programs. It is possible that the Director of Institutions would call upon Special Education for assistance and support in setting up and maintaining the flow of data from the programs.

For the collection of data on the operations of private schools for handicapped in the state, each of these schools could be asked to report the needed data elements directly to Special Education on an individual request basis.

To facilitate data collection from the residential, institutional, and private school programs, Special Education could provide forms and instructions covering the data elements needed.

Special Education has not utilized automatic data processing for record keeping. Data collection and tabulation has always been handled on a manual basis. While it is possible that the tabulation of the age and handicap data on enrollments, waiting lists, incidence, and attrition could be done manually (probably requiring some additional part-time clerical support), Special Education should examine the possibility of using the ADP capability that is developing within the Department of Education. The number of records with which Special Education has been working, as well as the volume of new data (as described in this report) that could be developed, would suggest the application of automatic data processing techniques. ADP tabulation of data could be justified in terms of staff time and effort, and in terms of flexibility of data analysis that would be gained.

VIII. RESOURCE REQUIREMENTS—MANPOWER

If current report formats, supplemented by additional new formats, would be used for the collection of the data elements needed for model input, some time would be required on the part of a systems analyst working within the Division of Special Education. Tasks would include modification of current formats and instructions; design of new formats and writing of new instructions; development of procedures for handling of forms at local and state levels; establishment of data flow and interface between Special Education and the data processing facility that would run the model; establishment of data flow liaison between Special Education and the other state and private agencies operating special education programs. A minimum of 2 1/2 man-months of a systems analyst's time, over a period of three years, 1 man-month of a computer programmer's time, and 1 man-month of forms design effort would probably be required to implement the new reporting procedures. Some coordination and assistance on the part of current Special Education staff would, of course, be needed during the implementation period (approximately 2 man-months), especially in the area of communication with local school personnel.

If data would be manually tabulated, an additional 1 man-month of clerical time, and a few man-days of systems analyst time, would be required over each year for on-going maintenance of the data flow and the model. If automatic data processing could be employed for partial tabulation of the input data, 1 man-week of systems analyst time, and a small amount of clerical support, would be required over each year for on-going maintenance.

IX. PERSONS INTERVIEWED

Mr. James Marshall	Director, Division of Special Education, State Department of Education
Dr. Robert Haines	Director of Institutions, Division of Institutional Management, State Department of Social Welfare
Miss Lillian Duer	Administrative Assistant, Division of Institutional Management, State Department of Social Welfare
Mr. Max Bickford	Executive Secretary, State Board of Regents
Mr. Harry Dean	Director of Midwest Project, Division of Central Administration, State Department of Education
Melvin Bruntzel, Speech and Hearing Programs	
Gerald Carder, Emotionally Disturbed Programs	
Marguerite Phorsell, Mental Retardation Programs	
Daisy Daniels, Mental Retardation Programs	Educational Directors/Consultants within the Division of Special Education, State Department of Education
Bonnie Bullard, Visually Impaired Programs	
Donald Jernberg, Home Instruction Programs, PL 85-926	
Donald Herbel, Title VI	
Phyllis Ellis, Special Learning Disabilities, School Psychology and Social Work	

X. CURRENT REPORT FORMATS

Annual Report of Classes for Visually Handicapped
Form 136-C

Class Enrollment—Hard of Hearing
Form 131-G

Speech Programs Annual Program Report
Form 131-F

Application for Approval of Homebound Instruction
Form 120

School Psychological Service Program Report
Form 130-C

Report of Speech and Hearing Examination—Clinical and Medical
Form 137-69 Rev.

Claim for Reimbursement for Teaching Homebound Children
Form 121

136 C

ANNUAL REPORT OF CLASSES FOR VISUALLY HANDICAPPED

Date of report_______________

Report as of October 15 should be sent to the Division of Special Education. Also, at the end of the school year one copy must accompany each claim for reimbursement. A duplicate copy should be kept on file in the local administration office.

County _______________ City ____________ School ______________ Dist. No. _____
Teacher _______________ Superintendent ____________________ School Year ______

Pupil Survey, Resident and Non-resident

Name	C.A. June 1 Yrs.Mos.	Visual Acuity	Days on Roll	Days Present	Years in Spec. Class	Res. or Non-res.	Recommendations for next School Year

(REPRODUCED FROM STATE FORM)

Divn. of Spec. Ed.
120 E. Tenth
Topeka, Ks. 66612

D16-20

form 131-G

CLASS ENROLLMENT - HARD OF HEARING

COUNTY_____ CITY_____ District No. _____ School Year_____

TEACHER_____ Building_____

Child's Name	Age	Total Number of days enrolled	Non-resident District No.	Otological & Audiological Work-up available?	Grade Placement or Equivalent	Recommended Placement for Following Semester

(REPRODUCED FROM STATE FORM)

Comments:

Submit one copy to: (Retain one copy)
State Department of Education
Division of Special Education
120 East Tenth Street
Topeka, Kansas 66612

SPEECH PROGRAMS
ANNUAL PROGRAM REPORT
(to be completed by speech clinician)

County _____ City _____ School _____ District No. ____

School Address _____ Zip Code _____

TEACHER INFORMATION

Name _____
First Middle Last (Maiden Name)

Home Address _____ Home Phone _____ Zip Code _____

Salary this year _____ Next year _____ Paid on 9-10-11-12 month contract. (circle)

Bachelors Degree _____ School _____ Address _____ Date graduated _____

Masters Degree _____ School _____ Address _____ Date graduated _____

Additional hours or degrees:

School	Hours	Year	Degree

Number of years taught in speech correction _____ other areas _____ Total _____

Membership (circle as many as appropriate) NEA, KSTA, KSHA, ASHA, CEC, Local Assoc., others: _____

Do you plan to return to this school system next year. _ No _____
If no, where do you plan to go? _____

SCHOOL INFORMATION

(REPRODUCED FROM STATE FORM)

List names of school buildings ur district.

List names of schools served by you outside of your district. (Non-resident)

District #
District #
District #
District #

Number of speech clinicians in district (count yourself) _____

Number needed (based on one clinician per 2000 regular student population K-12) (count yourself) _____

Number of miles traveled during year _____

Amount paid to you per mile by school ___ (Dollars per year if on yearly basis) _____

Do you receive a salary differential for being a specialist? Yes ____ No ____
Amount$_____

Form 131-F (Rev. 1969)

ENROLLMENT AND PROGRAM INFORMATION

Total number of students served during year:

Grades K-3 _____ 4-6 _____ 7-9 _____ 10-12 _____

Number of Audiometric Screening Tests given by you _____

Number of Threshold Tests given by you _____

If you do not administer these tests, give name and occupation of person who does: (Attach additional list if necessary)

Name	School Address	Occupation

Number of speech tests (screening) _____

Number of speech tests (diagnostic) _____

Date you actually began speech correction classes with the students _____

Number on case load at beginning of program _____

Number on case load at end of year _____

Number dismissed _____

Number dropped, moved or withdrawn _____

Do you use block or cycle scheduling Yes ____ No ____

If answer is yes, what is average case load per block _____

CLASSIFICATION (Any child with more than one disability will be counted once in each area of his disability; ie: a hard of hearing, cleft palate person would be counted: cleft palate 1, hearing 1.)

	Number Served	Number on waiting list
Defects in articulation		
Disorders of language		
Stuttering		
Cleft palate		
Cerebral palsy		
Disorders of voice		
Disorders due to hearing impairment		
Mental retardation		
Others		

Comments and/or criticisms: _____

(REPRODUCED FROM STATE FORM)

_____ Date

_____ Clinician

Form 120

APPLICATION FOR APPROVAL OF HOMEBOUND INSTRUCTION

(Child may be enrolled in school for part of day if able.)

(Send both copies of this form to the Division of Special Education as soon as or before instruction has started.)

County_____ Town (P. O.)_____ Name of School Dist._____ Dist. No._____

Name of child_____ Date of Birth:_____ Race_____ Grade level_____

Taught in *home* or *hospital* (circle). Or other:_____ Miles traveled per round trip_____

Child taught_____days a week for_____minutes each day starting on_____
(Minimum of 3 hours per week is recommended) (Month Day Year)

School-to-home telephone—Date installed:_____ (Home-to-school telephone especially needed for average or above average children in the upper elementary and secondary grades.)

Circle if child on *Home or Hospital* Instruction, in special class for *EMR, Trainable* Retarded, *Orthopedically* Handicapped, *Visually* Impaired, or other_____ during previous years. Circle year: 1961, 62, 63, 64, 65, 66.

Psychological evaluation: Date_____ Name of tests_____

M. A._____ I. Q._____ Other data_____

Or estimated mental ability_____

Attached are detailed lists of expenditures for supplies and equipment for which approval is requested. (Lists may be sent in later as requirements are determined.)

Name of teacher_____or teachers where two or more subject matter specialists are used

Give certification and other data only if this is the first child to be assigned this teacher for current year. Kind of certificate held _____Certificate valid until_____

Class teaching duties: *None Regular class, Special class, other*_____
Full-time, Half-time, Substitute. (Please circle.)

Date of this application_____ Signed_____
Name and Title of School Administrator

PHYSICIAN'S RECOMMENDATIONS

This is to certify that I have examined this child and have made the following diagnosis:_____

This child has additional handicaps in speech, vision, hearing, emotional disturbance, mental retardation, neurological impairments, immaturity, pregnancy, _____ (Circle impairments noted.)
(other)

In my opinion, this child is *physically* unable to attend school and is able to receive instruction at home, in a hospital, or through individualized instruction. I recommend_____hours of instruction per day with the following remarks and suggestions:

Signed_____ Office address_____
(Attending physician)
(Please type in name also)

Do not write below this line.

(REPRODUCED FROM STATE FORM)

The following action has been taken with respect to this application:

_____Initial approval
_____Conditional approval pending further information
_____Disapproval

If approved, reimbursement can be claimed after instruction has terminated or at the close of the regular school term (whichever comes first) and after the necessary forms have been submitted to this office. Additional remarks:

State Department of Public Instruction Signed_____
Division of Special Education

32-1618-2-5—14-22 11-67-3M SETS

Form 130-C

KANSAS DEPARTMENT OF PUBLIC INSTRUCTION DIVISION OF SPECIAL EDUCATION

SCHOOL PSYCHOLOGICAL SERVICE PROGRAM REPORT (File one copy with Division of Special Education by June 1.)

School Name_____ Address_____ County_____

District No._____ School Year_____ Psychologist's Name_____

Children Seen by School Psychologist for:	No.	Average Time	Most Common Reasons	Most Common Instruments Used
1. Complete Evaluation			1. 2. 3.	1. 2. 3
2. Screening			1. 2. 3.	1. 2.
3. Other (Explain) _____			1. 2. 3.	1. 2.
4. Therapeutic Sessions			1. 2. 3.	Type of Approach Used
5. Teacher Conferences			1. 2. 3.	
6. Administrative Conferences			1. 2. 3.	
7. Parent Conferences			1. 2. 3.	
8. Other (Explain) _____			1. 2. 3.	

9. List professional meetings attended: _____

10. Suggested content areas for school psychology meetings: _____

11. List clinical tools you feel competent using: _____

12. Discuss one or more of these areas: Role in educational planning, needs in special programs, effective procedures, most common types of problems, etc. (Use back of page.)

*Send a copy of a psychological report you have written.

(REPRODUCED FROM STATE FORM)

REPORT OF SPEECH AND HEARING EXAMINATION—CLINICAL AND MEDICAL

(Please return to school)

TO BE COMPLETED BY SCHOOL: (Use ball point pen or typewriter. No carbon necessary. Press firmly).

Name: _____ District: _____ County: _____

Address: _____ Telephone: _____

Birthdate: _____ 19__ Birthplace: _____

Father: _____ Mother: _____

Grade: _____ Teacher: _____ Nurse: _____

School: _____ School Address: _____

PERFORMANCE ON HEARING SCREENING TEST

☐ ISO ☐ ASA	500	1000	2000	4000	6000
Right					
Left					

Tester _____

Date _____

PERFORMANCE ON SPEECH SCREENING TEST

1. Voice
   a. Pitch ☐
   b. Loudness ☐
   c. Quality ☐
2. Nasality ☐
3. Articulation ☐
4. Rhythm ☐

Others: _____

Reason for referral to physician:

- ☐ Hearing
- ☐ Tonsils-Adenoids
- ☐ Lingual Freedom
- ☐ Soft Palate Functioning
- ☐ Vocal Fold Functioning
- ☐ Nasal Pharynx
- ☐ Cleft Palate
- ☐ Cleft Lip
- ☐ Voice Quality

Others: _____

I hereby authorize the release of the results and recommendations from this examination to school officials and the use of these data in any statistical studies that may be desired.

_____

Parent or Guardian Date

TO BE COMPLETED BY AUDIOLOGIST AND/OR PHYSICIAN.

☐ ISO ☐ ASA	250 Hz	500 Hz	1000 Hz	2000 Hz	Opt. 3000	4000 Hz	Opt. 6000 Hz	8000 Hz
Rt. Air								
Rt. Bone							xxx	xxx
Lt. Air								
Lt. Bone							xxx	xxx

Signed: _____ Audiologist or Physician

Address _____ Date

(REPRODUCED FROM STATE FORM)

(Please circle appropriate response)

Type of Hearing Loss

Normal	R	
Sensory Neural	R	
Conductive	R	
Mixed	R	L

Loss

Permanent	R	L
Temporary	R	L
Therapy Completed	Yes	No

Suggestions

Special seating in classroom	Yes	No
Amplification (hearing aid)	Yes	No
Speech Reading (lip reading)	Yes	No

Medical Diagnosis and Recommendations for:

Ears: _____

Nose: _____

Throat: _____

Larynx: _____

Related general medical diagnosis: ☐ Diabetic ☐ Heart Disease ☐ Other

_____ Date _____ Physician _____ Address

TO BE COMPLETED BY SCHOOL AFTER RETURNED BY PHYSICIAN AND/OR AUDIOLOGIST:

Educational Information

Intelligence level _____ Name of Test: _____ Date _____

Additional physical, mental, or adjustment problems: _____

Educational Recommendations: _____

School nurse comments: _____

Date: _____ Nurse: _____

KANSAS STATE DEPARTMENT OF EDUCATION
Division of Special Education
120 East Tenth—Topeka, Kansas 66612

To comply with G. S. 72,5301, reporting of exceptional children.
Green & canary copies: Send to Division of Special Education
Pink copy: Retain for school file. White copy: Retain for doctor's file, if desired

FORM 121

CLAIM FOR REIMBURSEMENT FOR TEACHING HOMEBOUND CHILDREN

(Send all four copies of this form to the Division of Special Education by June 15 following end of instruction.)

County_____ Town_____ School_____ Dist. No._____

Name of homebound child_____

TEACHER'S REPORT: As this child's teacher, I make the following report on progress made during the period of instruction for which reimbursement is being claimed:

Attitude of child toward instruction_____
Child's progress during instruction_____
Date instruction terminated_____

For the future, I recommend _____Continuation of home instruction
_____Return to regular class
_____Discontinuation of home instruction

Reasons for above choice_____
Additional remarks:

(REPRODUCED FROM STATE FORM)

Teacher's signature_____

ADMINISTRATOR'S REPORT: This child has been given home or hospital instruction as follows:

Number of weeks of instruction: At hospital_____ At home_____
Number of instruction periods per week: At hospital_____ At home_____
Length of instruction periods (in minutes): At hospital_____ At home_____
Total number of miles traveled in giving instruction: At hospital_____ At home_____

Attached are detailed reports of other allowable expenditures given prior approval by the Division. I certify that this information is a valid report on the instruction given to this child, and request that reimbursement be made accordingly.

Administrator's signature_____
(Name and Title)

(Note: In all cases, this form must be signed by a Superintendent of Schools or by a County Superintendent of Schools.)

Do not write below this line.

Authorization is being made for reimbursement of this claim according to the following rates:

Amount for Instruction_____ $_____
Amount for Mileage_____ $_____
Other allowable expenses_____ $_____
Total allowable reimbursement $_____

A State Warrant for the above amount is being prepared and will be made payable to your County Treasurer. Upon receipt of this warrant, he will credit that amount to the funds of your school district. Additional remarks:

State Superintendent of Public Instruction

Signed_____
Division of Special Education

TABLE 1
SUMMARY OF DATA DEVELOPMENT STATUS
KANSAS

DATA ELEMENTS			PUBLIC SCHOOL PROGRAMS			STATE RESIDENTIAL PROGRAMS			STATE INSTITUTIONAL PROGRAMS			PRIVATE SCHOOL DATA
			CURRENT STATUS	METHOD OF DEVELOPMENT	SOURCE OF DATA	CURRENT STATUS	METHOD OF DEVELOPMENT	SOURCE OF DATA	CURRENT STATUS	METHOD OF DEVELOPMENT	SOURCE OF DATA	
NUMBER OF CHILDREN IDENTIFIED AS NEEDING SPECIAL EDUCATION	ENROLLED	AGE	Now exists for all handicap areas		Annuel enrollment report forms, applications for homebound programs submitted by local personnel	Data exists at each school. Not now being tabulated. Not now available at state level	Data could be provided to Special Education on request basis. Forms and instructions should be supplied by Special Education	Records maintained by individual schools	Data not now available at state level in detail needed. Does exist at school level	Could be collected from each institution by Director of Institutions using forms and instructions supplied by Special Education, then forwarded to Special Education	Records maintained by individual school programs	Not now available at state level. Could be requested from each school on individual basis.
		HANDICAPPING CONDITION										
		EDUCATION PROGRAM	Not now available except homebound	Could be added to annual report forms								
	ON WAITING LIST	AGE	Not now available	Format could be developed to record children waiting	Special education personnel in local schools							
		HANDICAPPING CONDITION										
NUMBER OF CHILDREN MOVING INTO AND OUT OF IDENTIFIED HANDICAPPED CHILD POPULATION	NEWLY DIAGNOSED AS NEEDING SPECIAL EDUCATION	AGE	Not now available	Format could be developed to record new diagnoses and intrastate transfers	Special education diagnostic personnel at local level							
		HANDICAPPING CONDITION										
	INTRA-STATE TRANSFERS	AGE										
		HANDICAPPING CONDITION										
	ATTRITION FROM THE IDENTIFIED HANDICAPPED POPULATION	AGE	Not now available except for some data on speech and homebound	Speech report form and homebound claim form can be modified. Other annual report forms can be utilized	Teachers and clinicians can report on attritions using annual report forms, claim forms							
		HANDICAPPING CONDITION										
		REASON										
YEARLY PROJECTIONS OF THE CHILD POPULATION, BY AGE			Basic data available	Can be requested by Special Education	Statistical Services Section							
DATA USED TO SIMULATE SPECIAL EDUCATION	EDUCATION PROGRAM MIX TRENDS		Program types not now reported	Could be added to annual report forms	Annual reports submitted by local personnel							
	TYPES OF PERSONNEL AND PERSONNEL/PUPIL CONTACT RATIOS	TARGET GROUP	Currently available		Personnel records/counts maintained at state level. New automated personnel data system being developed							
		EDUCATION PROGRAM										
OPTIONAL: NUMBER OF SPECIAL EDUCATION PERSONNEL EMPLOYED, BY TYPE												